AUGUST 1, 1942

Railway Age

Founded in 1856

McCARTNEY LIBRARY
GENEVA COLLEGE

1,000,000 YOUNGSTOWN STEEL DOORS

PROTECTING THE LADING FOR

ictory

OVER 1,000,000 YOUNGSTOWN STEEL DOORS IN SERVICE AIDING AMERICAN AND CANADIAN RAILROADS MEET THE WARTIME TRANSPORTATION JOB.

YOUNGSTOWN STEEL DOOR COMPANY

CLEVELAND CHICAGO NEW YORK YOUNGSTOWN

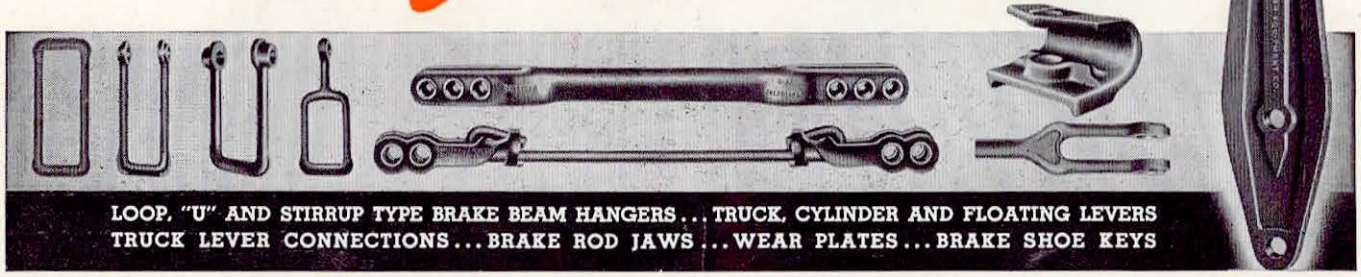
LESS WEIGHT

Schaefer Forged Steel Brake Gear Parts perform a function vital to speedy war transportation—help to keep cars in rapid circulation.

LONGER LIFE

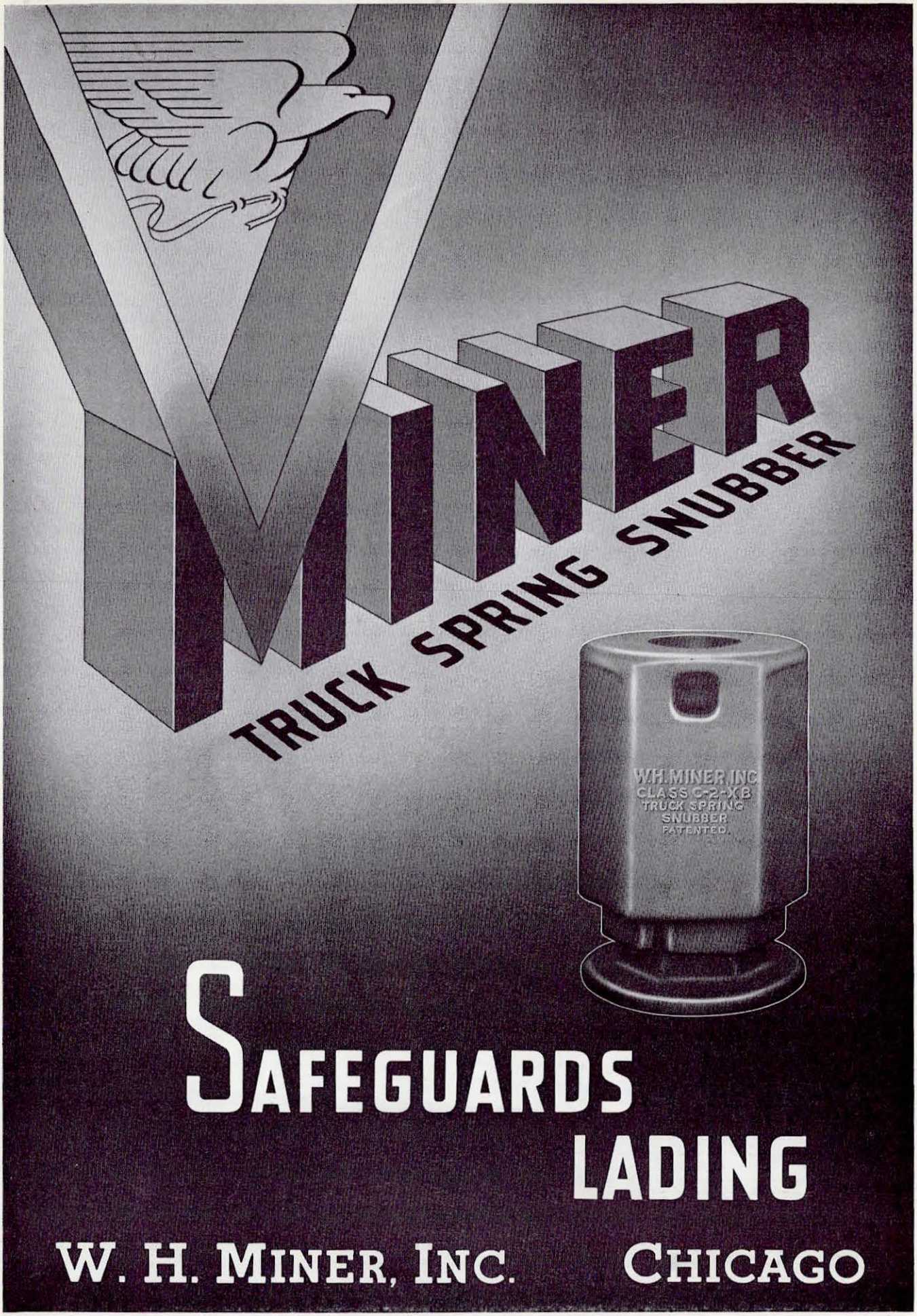
Schaefer EQUIPMENT COMPANY

KOPPERS BUILDING • PITTSBURGH, PA.



LOOP, "U" AND STIRRUP TYPE BRAKE BEAM HANGERS... TRUCK, CYLINDER AND FLOATING LEVERS
TRUCK LEVER CONNECTIONS... BRAKE ROD JAWS... WEAR PLATES... BRAKE SHOE KEYS

Published weekly by Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia, Pa. Entered as second class matter, January 4, 1933, at the Post Office at Philadelphia, Pa., under the act of March 3, 1879. Subscription price $6.00 for one year U. S. and Canada. Single copies, 25 cents each. Vol. 113, No. 5.


MINER
TRUCK SPRING SNUBBER
W.H. MINER INC.
CLASS C-2-XB
TRUCK SPRING
SNUBBER
PATENTED.
SAFEGUARDS
LADING
W. H. MINER, INC. CHICAGO

It takes a lot of things to win a World War

Reading Time: 37 Seconds

The new Government Allocation Classification tells a story our customers are entitled to know. Each check mark indicates a military, industrial or civilian need which the American Chain & Cable Company, Inc. helps to meet.

We submit this report not to prove that we are helping to win the war. For it is the duty and privilege of every manufacturing concern to produce to the limit of its capacity what the Government now needs.

But the check marks on this list illustrate the remarkable diversification of our products which in time of peace are essential to industry, transportation and agriculture. In war, they are equally essential to victory.

Therefore, we serve our customers best by working day and night to help win the war. This we are doing with the full cooperation of every man and woman in our organization.

ALLOCATION CLASSIFICATION

Purchasing group and their abbreviations: Army—USA, Navy (including Maritime Commission)—USN; Lend Lease—LL; Other Foreign Purchasers—FP; Other Domestic Purchasers—DP.

(NOTE: The symbol numbers below have no relation to order of importance.)

Allocation Symbol

MILITARY

✔ **CLASS 1.00—AIRCRAFT—PRODUCTION AND MAINTENANCE** (Complete except for armament and ammunition—as approved by the Joint Aircraft Committee).

✔ **CLASS 2.00—SHIPS, PRODUCTION AND MAINTENANCE** (Complete except for armament and ammunition).

✔ 2.10 Battleships.
✔ 2.20 Aircraft Carriers.
✔ 2.31 Escort Vessels (aircraft), combat, loaded transports, and combat loaded cargo ships.
✔ 2.32 Patrol Vessels.
✔ 2.33 Landing craft including the following types: APM, ATL, YTL, tank lighters, artillery lighters, landing boats, support landing boats.
✔ 2.40 Light Cruisers.
✔ 2.50 Destroyers including escort vessels.
✔ 2.60 Submarines.
✔ 2.70 All other types of naval craft.
✔ 2.80 Repairs to all naval vessels.
✔ 2.90 Ships for Maritime Commission.

✔ **CLASS 3.00—VEHICLES—PRODUCTION AND MAINTENANCE** (Complete except for armament and ammunition).

✔ 3.10 Tanks and armored vehicles—all types.
✔ 3.20 Vehicles, except rail—all other military types.

✔ **CLASS 4.00—ARMAMENT AND WEAPONS—PRODUCTION AND MAINTENANCE** (Complete with mounts and related equipment).

✔ 4.10 Aircraft
✔ 4.20 Anti-aircraft, Barrage Balloon Equipment, A. A. Searchlights.
✔ 4.30 Artillery including railway and seacoast.
✔ 4.40 Fire control, all types.
✔ 4.50 Machine guns—ground, hand arms.
✔ 4.60 Naval, all types.
✔ 4.70 Tanks and anti-tank.
✔ 4.90 Weapons of all other types.

✔ **CLASS 5.00—AMMUNITION—PRODUCTION AND MAINTENANCE** (Complete items).

✔ 5.10 Ammunition 20 mm. and above.
5.20 Ammunition, small arms below 20 mm.
✔ 5.30 Bombs, depth charges, mines and torpedoes.
✔ 5.40 Propellants, chemicals, explosives.
5.50 Pyrotechnics.

✔ **CLASS 6.00—WAR EQUIPMENT AND SUPPLIES—PRODUCTION AND MAINTENANCE** (Complete with related equipment).

✔ 6.10 Chemical Warfare equipment and supplies.
6.20 Clothing, general supplies and subsistence.
6.30 Mapping, Map Reproduction and photographic equipment.
✔ 6.40 Medical Equipment and supplies.
✔ 6.50 Military field construction equipment.
✔ 6.60 Military radio and wire communications, or electronic equipment—all types.
✔ 6.70 Military railway including rail vehicles and bridge equipment.
✔ 6.80 Supplies and equipment—all other military types.
✔ 6.90 Supplies and equipment—all other.

✔ **CLASS 7.00—WAR FACILITIES—CONSTRUCTION AND/OR MAINTENANCE.**

✔ 7.10 Air Fields, Bases, Camps, Coast Defense, Depots, Forts, Navy Yards, Posts, Stations—Continental U. S. A.
✔ 7.20 Air Fields, Bases, Camps, Coast Defense, Depots, Forts, Navy Yards, Posts, Stations—outside Continental U. S. A.
✔ 7.30 Munitions manufacturing facilities and proving grounds—government owned.
✔ 7.40 Panama Canal.
✔ 7.50 Shipyards and Ship Repair facilities—government owned.

INDUSTRIAL AND CIVILIAN

✔ **CLASS 8.00—RAW MATERIALS PRODUCTION AND PROCESSING OF.**

✔ 8.10 All Metals, Production (including mining) Smelting and Processing of.
✔ 8.20 All Chemicals, Production and Processing of.
8.90 All other Raw Materials, Production and Processing of.

✔ **CLASS 9.00—POWER, LIGHT AND HEAT.**

✔ 9.10 Electricity.
✔ 9.20 Petroleum.
✔ 9.30 Coal and Coke.
✔ 9.40 Gas.

✔ **CLASS 10.00—TRANSPORTATION.**

✔ 10.10 Railroad including Urban and Interurban.
✔ 10.20 Automotive.
✔ 10.30 Roads, Streets, etc., Construction and Maintenance of.
✔ 10.40 Water Transportation, including construction of privately owned shipyards.
✔ 10.50 Air Transportation.
✔ 10.90 All Other Transportation.

✔ **CLASS 11.00—COMMUNICATION.**

✔ 11.10 Telephone.
✔ 11.20 Radio.
✔ 11.30 Telegraph.
✔ 11.90 All Other Communication.

✔ **CLASS 12.00—PUBLIC HEALTH AND SAFETY.**

✔ 12.10 Sanitary & Health Systems & Facilities.
12.20 Health Equipment and Supplies including Personal Care.
✔ 12.30 Public Safety Equipment and Supplies.
✔ 13.00 **CLASS 13.00—AGRICULTURAL EQUIPMENT AND SUPPLIES.**
✔ 14.00 **CLASS 14.00—INDUSTRIAL FOOD PROCESSING.**
15.00 **CLASS 15.00—WEARING APPAREL.**
✔ 16.00 **CLASS 16.00—EQUIPMENT AND SUPPLIES FOR HOUSEHOLD USE.**

✔ **CLASS 17.00—EDUCATION AND INFORMATION.**

17.10 Printing and Publishing.
✔ 17.20 Education.
✔ 18.00 **CLASS 18.00—RECREATION AND AMUSEMENT.**
✔ 19.00 **CLASS 19.00—EQUIPMENT AND SUPPLIES FOR OFFICE USE.**

✔ **CLASS 20.00—MACHINERY AND EQUIPMENT FOR INDUSTRIAL USE.**

✔ 20.10 Metal working machinery.
✔ 20.20 All other—including Mine, Construction, Special and General Industrial.

✔ **CLASS 21.00—NEW BUILDINGS, CONSTRUCTION OF.**

✔ 21.10 Buildings for Manufacturing and Commercial Purposes, Construction of.
✔ 21.20 All Types of Dwellings, Construction of.
✔ 21.90 All Other Types of Buildings, Construction of.
✔ 22.00 **CLASS 22.00—OPERATING SUPPLIES & BUILDING REPAIR & MAINTENANCE.**
23.00 **CLASS 23.00—ALL OTHER END USES**—(excludes all sub-assemblies and parts going into finished products coming with the other classes).

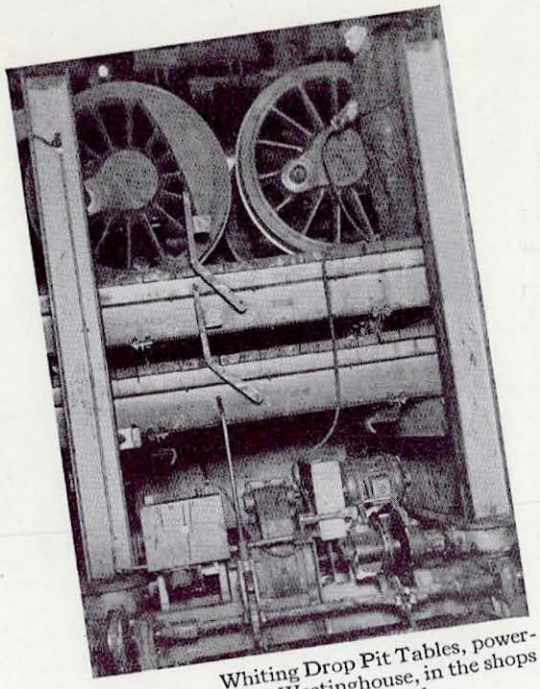
AMERICAN CHAIN & CABLE COMPANY, Inc.

BRIDGEPORT · CONNECTICUT

ESSENTIAL PRODUCTS ... AMERICAN CABLE Wire Rope, TRU-STOP Emergency Brakes, TRU-LAY Control Cables, AMERICAN Chain, WEED Tire Chains, ACCO Malleable Iron Castings, CAMPBELL Cutting Machines, FORD Hoists and Trolleys, HAZARD Wire Rope, Yacht Rigging, Aircraft Control Cables, MANLEY Auto Service Equipment, OWEN Springs, PAGE Fence, Shaped Wire, Welding Wire, READING-PRATT & CADY Valves, READING Electric Steel Castings, WRIGHT Hoists, Cranes, Presses ... *In Business for Your Safety*

MORE TIME ON THE ROAD . . . LESS TIME IN THE SHOPS!

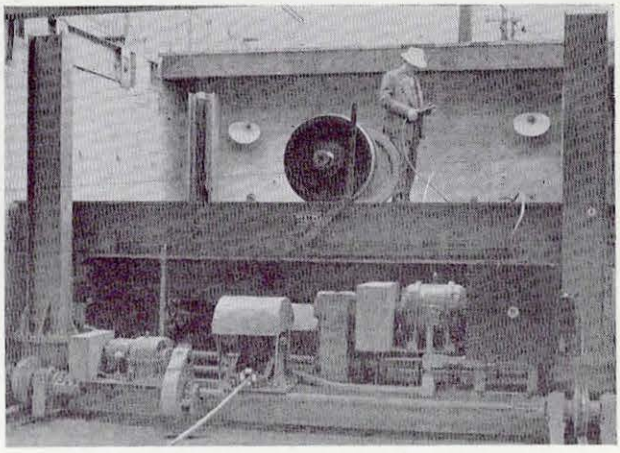
Electric power puts MORE STEAM behind the Nation's transportation efforts



Whiting Drop Pit Tables, powered by Westinghouse, in the shops of a leading railroad.

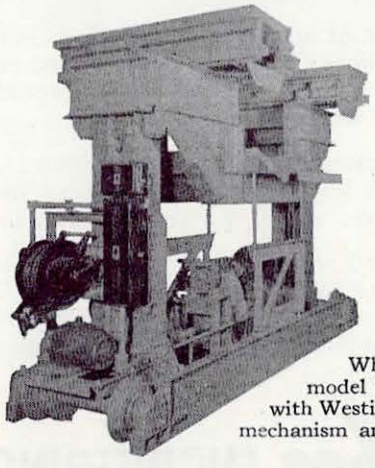
Maintenance of locomotives and coaches for today's peak transportation needs could be a "bottleneck" were it not for modern shop equipment. Electrically-operated Drop Pit Tables, for instance, have been a big help to the railroads in speeding up repair work and making possible quick and easy replacement of vital parts.

Capable of bearing great weights and with hoisting speeds of 2 to 4 feet per minute, these "elevators" have proved themselves to be efficient, economical and entirely dependable.



Powered and Controlled by Westinghouse

In the development of electric motors and controls for Drop Pit Tables, Westinghouse was guided by more than 50 years' experience in adapting electricity to the railroads' needs. From motors to Diesel electrics, Westinghouse knows the electrical side of the railroad business. Why not avail yourself of this knowledge in solving your next electrical problems? Simply get in touch with your Westinghouse District Office. Westinghouse Electric & Mfg. Company, East Pittsburgh, Pa. J-95076



Whiting two-screw model Drop Pit Table with Westinghouse driving mechanism and controls.

Westinghouse

Time saver for American Railroads

3 MILES OF TIMBER BUILDINGS HELP STORE CANADA'S GRAIN!

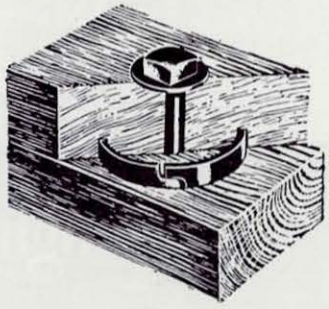
Engineered Timber Cuts Time and Cost on Canada's Emergency Grain Storage Problem!

22,000,000 feet of lumber, prefabricated and joined by the TECO System of Timber Construction, was used to construct 22 of these buildings at high speed, to house Canada's anticipated half-billion-bushel wheat crop.

TECO Connectors strengthened the joints . . . reduced necessary hardware and bulk of framing members, and, because there are no priorities on wood, the lumber was readily available!

For those faced with building problems, much valuable data on timber construction has been compiled. Details of fabricating procedures; prints of typical designs; advantages, costs, and other pertinent information are available on request!

The TECO Ring Connector spreads the load on a timber joint over practically the entire cross-section of the wood . . . brings the full structural strength of lumber into play.



Timber ENGINEERING COMPANY

Washington, D. C. Portland, Oregon

For more than a century the name "Baldwin" has meant "locomotive" to railroad men throughout the world. Baldwin still serves the railroads, meeting their demands for modern power. Baldwin steam locomotives are helping the railroads to handle greater tonnage—at higher speed—than ever before in history. Baldwin Diesel-Electric switchers are speeding freight movements in yards and terminals from coast to coast.

But, today, Baldwin is more than a builder of railroad motive power. The skill and experience of the Baldwin organization is being applied to the building of tanks, guns and many other things needed by our armed forces and by industries essential to the war program.

Today, as in the First World War, Baldwin is devoting its efforts to this dual task of producing ordnance materiel and, at the same time, meeting the demand for its regular products so urgently needed to help achieve victory.

THE BALDWIN LOCOMOTIVE WORKS
Philadelphia

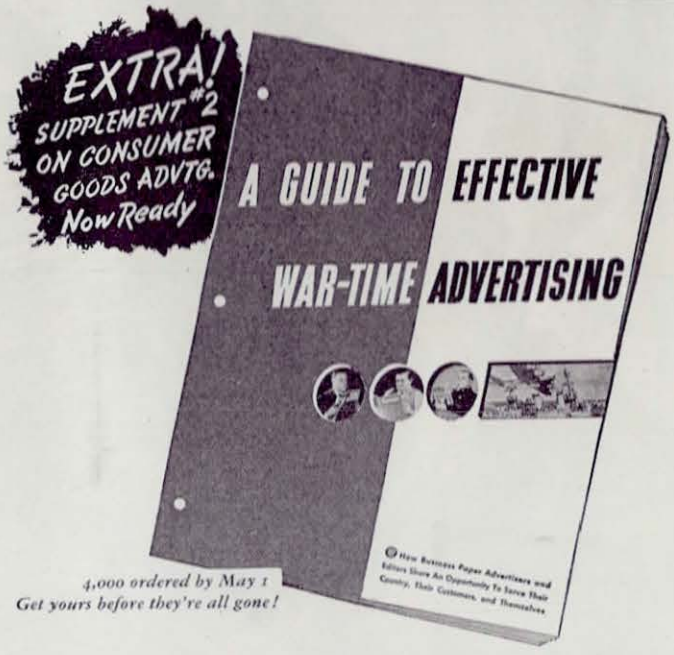
Baldwin serves the Nation which the Railroads helped to build

HOW YOUR ADVERTISING CAN HELP WIN THE WAR

Free Manual tells HOW

90 PAGES OF PRACTICAL HELP Demonstrates, by example, how your advertising, too, can help fight this war; help customers; help build a sound foundation for future business.

WANT FACTS? No chronicle of theories and opinions, this. "A Guide to Effective War-Time Advertising" is a factual report based upon the testimony of business leaders who have found ways to make their advertising *helpful* to their customers and prospects at a time when help is so desperately needed. It shows, too, how "oversold" companies now use "service advertising": how they do as the business paper editors do . . . *use their space to transmit important information from where it is to where it is needed.*



4,000 ordered by May 1
Get yours before they're all gone!

Useful Advertising Needs No Defenders!

We have to use
EVERYTHING WE'VE GOT
to win this war!

Good business papers are multi-purpose carriers that can convey important messages quickly, accurately, economically, to special groups of men with kindred war-time problems.

America, the world's greatest user of these vehicles of communication, has a powerful tool to use against the Axis.

By making the best possible use of business papers, now, we can strike a blow that will be felt across both oceans. "A Guide to Effective War-Time Advertising" will help you do this. One copy is yours for the asking . . . if you'll ask before they're all gone.

After you read this "Guide," you will have a new concept of what advertising can do to help America's war effort and to help your company solve its customer-relations problems, present and future. *And you will know what GOOD "institutional" advertising is!*

The "Guide" features advertisements that show some recognition of the conditions which today have *increased* rather than lessened the need for making business paper advertising *useful, informative* and *specific!* This "Guide," while comprehensive in itself, is only our introduction to a collection of case studies that will constitute a veritable WAR ALBUM. Send for it now and you'll receive additional up-to-the-minute case studies, free, as fast as they're produced.

TWO SUPPLEMENTS NOW INCLUDED!

In the first one a company head tells why his organization uses FOUR separate business paper advertising campaigns *as tools of management* to help solve difficult customer-relations problems under "sold out" conditions.

The second Supplement is Part One of a continuing study of dealers' war-time problems. It reports what distributive people are up against today and illustrates how some consumer goods manufacturers are using dealer paper advertising to speed useful suggestions and practical information that helps solve their mutual problems.

FREE

ASSOCIATED BUSINESS PAPERS,
Dep't. 2765, 369 Lexington Avenue, New York City

Please send, without obligation, my free copy of ABP's latest aid to advertisers, "A Guide to Effective War-time Advertising," including the supplements.

NAME.....

POSITION.....

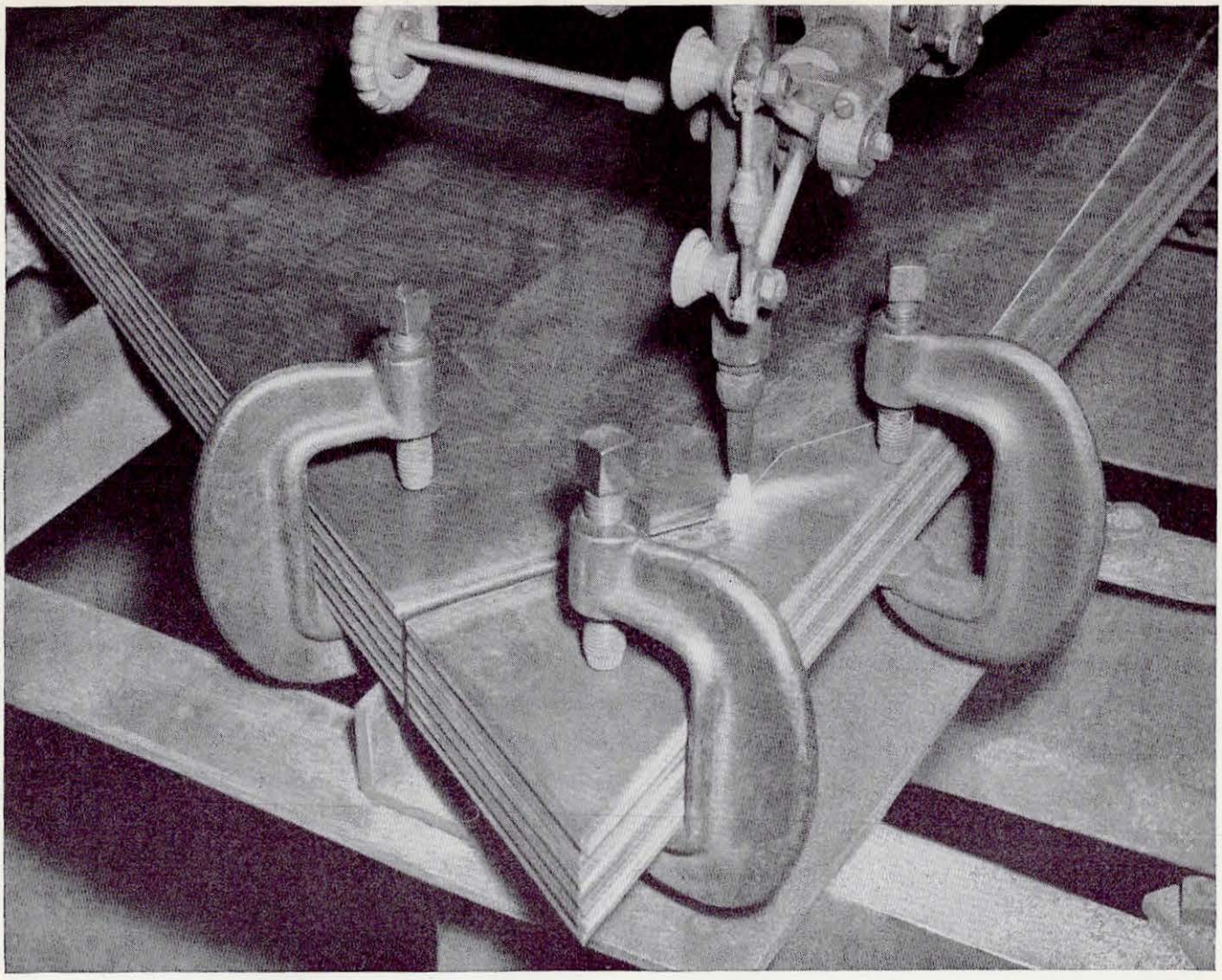
COMPANY.....

STREET.....CITY & STATE.....

ABP

THE ASSOCIATED BUSINESS PAPERS

A national association of business publications devoted to increasing their usefulness to their subscribers and helping advertisers get a bigger return on their investment.



OXY-ACETYLENE CUTTING OF PILED PLATE

Speeds Car Rebuilding Work

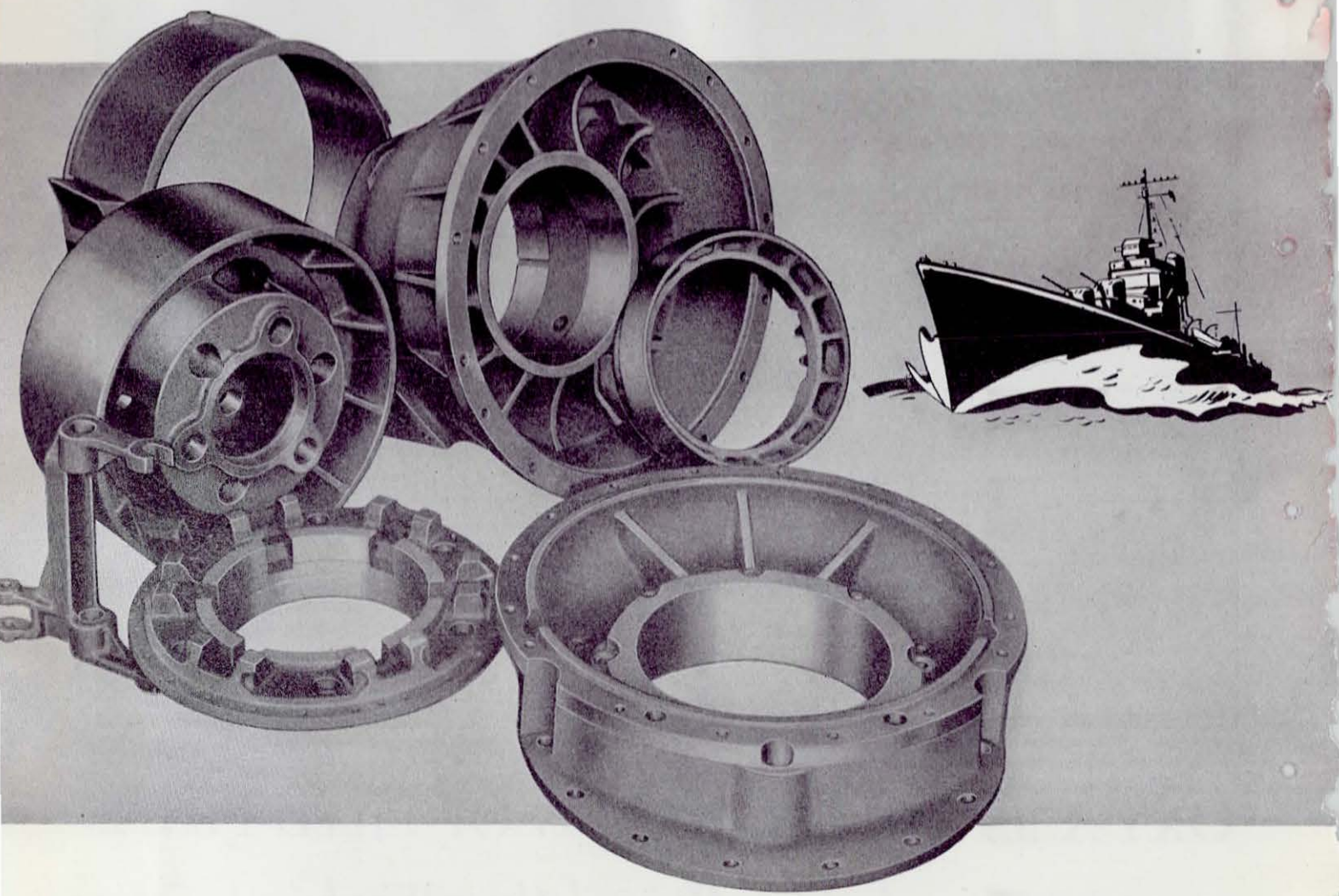
• When quantities of identical parts are required, oxy-acetylene cutting of piled plate is a fast and economical method. All the parts in the stack are cut simultaneously with resultant savings in time and gases. Piled plate cutting in most instances produces less scrap loss than that which results from shearing or coping, and the metal that is removed is uninjured, so that it can be used to produce other needed parts. Correct clamping of the plates assures clean, smooth, cut edges that usually require no further machining before the shapes are used. Because shapes produced by this method are all uniform in size and shape, subsequent forming, fitting, and assembly operations are speeded up.

THE OXWELD RAILROAD SERVICE COMPANY
Unit of Union Carbide and Carbon Corporation
UCC
Carbide and Carbon Building Chicago and New York

SINCE 1912—THE COMPLETE OXY-ACETYLENE SERVICE FOR AMERICAN RAILROADS

The word "Oxweld" is a registered trade-mark of a Unit of Union Carbide and Carbon Corporation.

POWER...and still more POWER for the Navy



These reduction gear units—important links between motor and propeller in naval vessels—are made of Cast Steel.

Steel Castings are used for this purpose for a very sound reason—they are the quickest and least costly way of securing the strength, the stamina, the precision and the wearing qualities needed for this vital job.

It is significant that the maker of these parts has just been asked to quadruple his output!

There are no adequate substitutes for Steel Castings in thousands of applications—for both armament and peacetime goods—no other materials that do the work quite so well, or that can be turned out so quickly at such low cost.

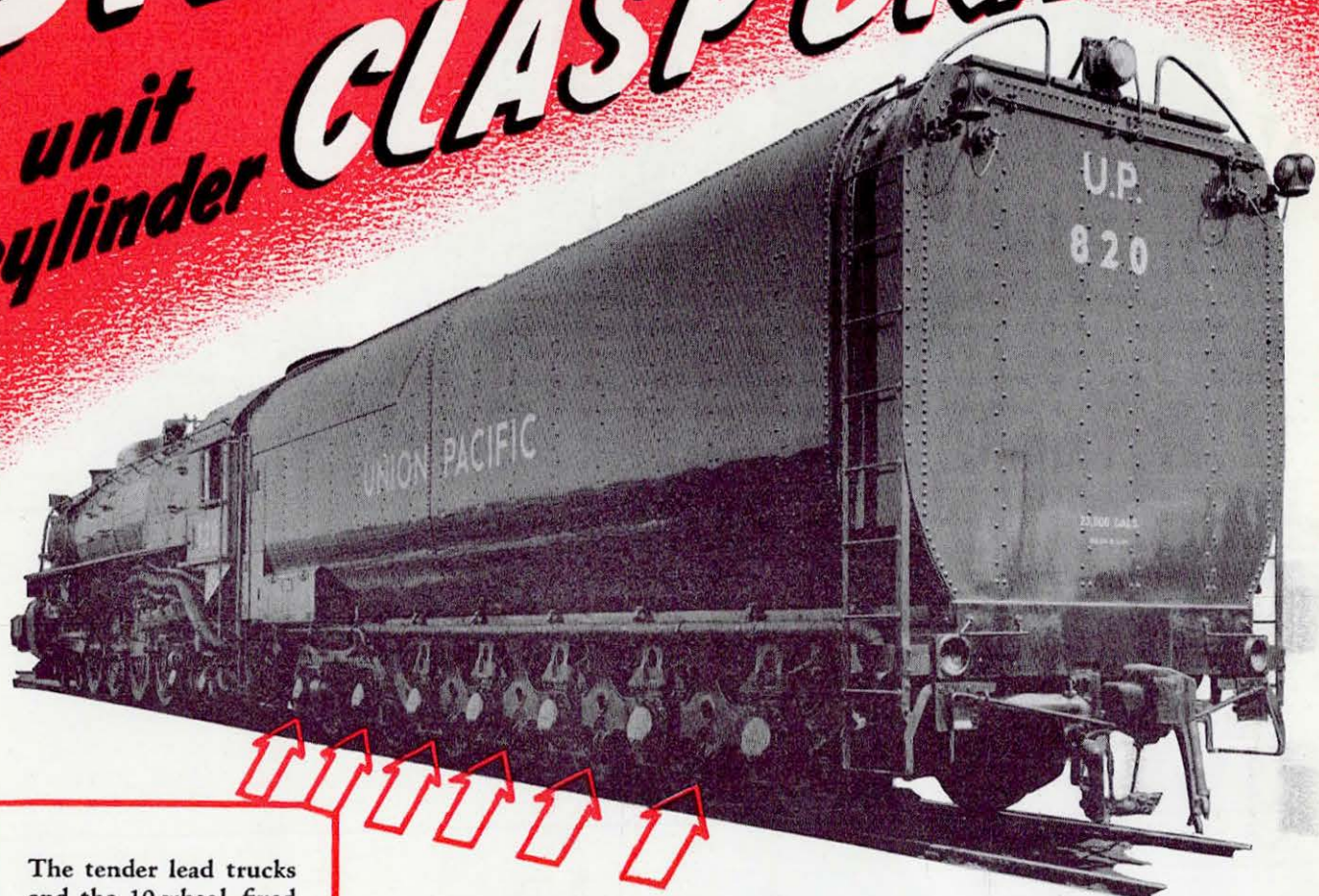
Should you find it difficult to get steel castings when you need them, it is because they have so many important jobs to do, and are in such great demand.

But you'll find your steel foundryman a resourceful man, anxious to help solve your problem. Or you may write to Steel Founders' Society, 920 Midland Building, Cleveland, Ohio.

MODERNIZE AND IMPROVE YOUR PRODUCT WITH

STEEL CASTINGS

SIMPLEX unit cylinder CLASP BRAKES



The tender lead trucks and the 10-wheel fixed group are all equipped with Simplex Unit Cylinder Clasp Brakes. All 14 wheels are 42″ in diameter and are braked with 17″ brake shoes.

. . . . . adopted on a novel tender design

These 23,500-gallon tenders of the Union Pacific's new locomotives present an innovation in tender design.

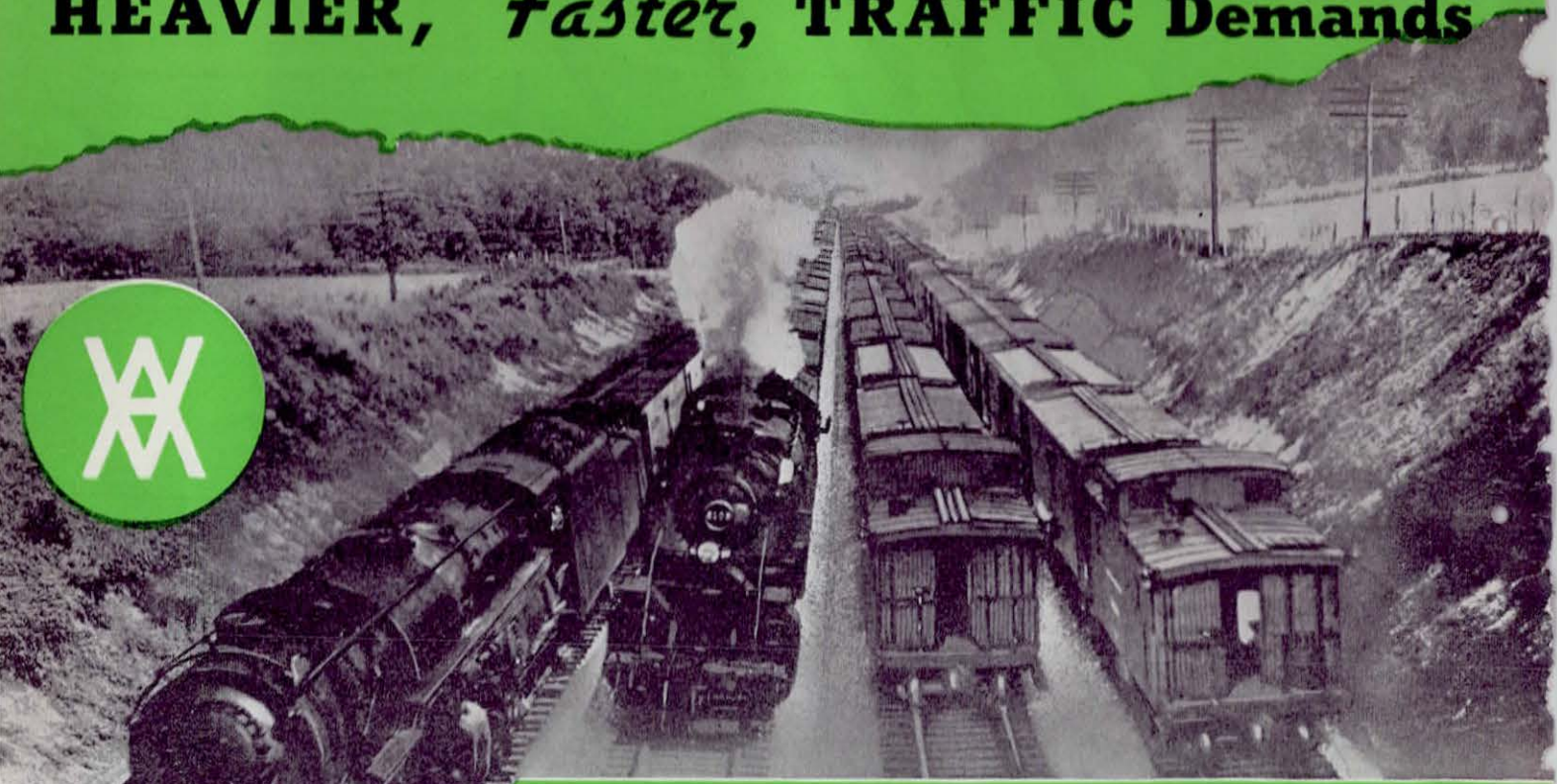
Behind a swiveling lead truck, the tender under-frame has 5 pairs of pedestals cast integral . . . a 10-wheel non-swiveling group.

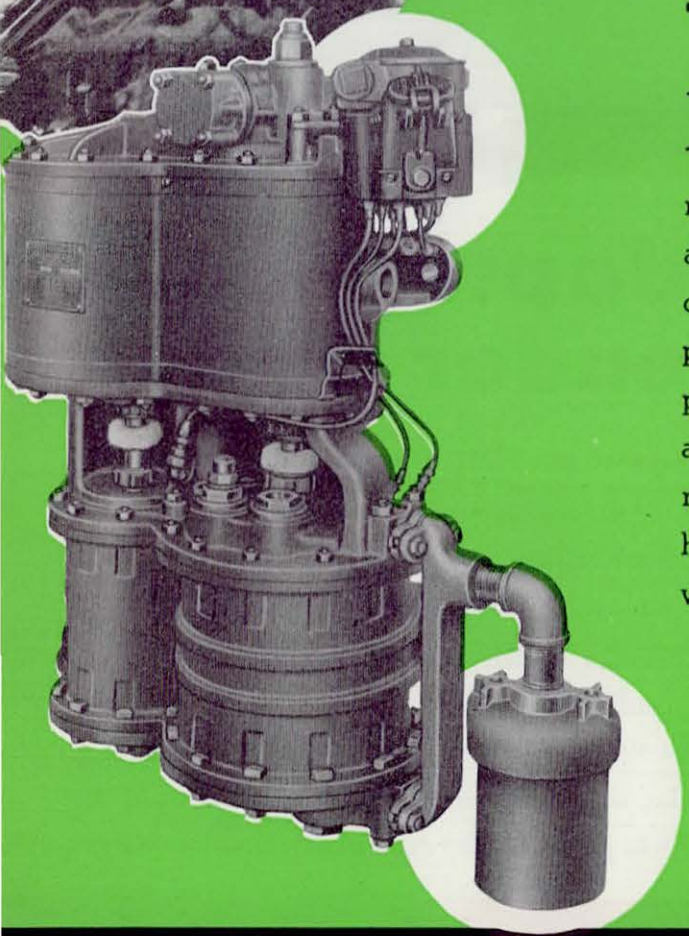
The Simplex Unit Cylinder Clasp Brakes designed for the 10-wheel group have one cylinder for each pair of wheels. Each cylinder is suspended from the under side of the tender bed.

This novel Clasp Brake was designed in collaboration with the railroad and builders, and was produced by American Steel Foundries.

AMERICAN STEEL FOUNDRIES

HEAVIER, *Faster*, TRAFFIC Demands





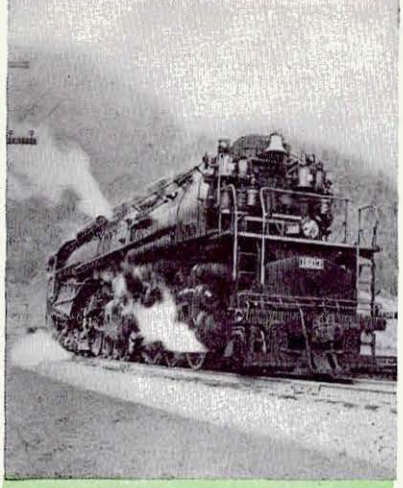
Maximum Reliability of AIR COMPRESSORS

FASTER, more frequent movement of heavy freight trains is taxing motive power capacity of the railroads today, when the greatest measure of locomotive availability is imperative . . . Such intensive operating conditions impose more rigorous service on air compressors, which are better able to stand the gaff when properly lubricated and kept free of dirt . . . Our mechanical lubricator and inlet filter do the trick. They insure reliable performance day after day. Their protection helps to minimize annoying and expensive delays. As preventive insurance they save their cost many times over.

Railroads now using these devices find that the time between compressor removals for maintenance can be greatly lengthened — as much as three to six times Many have eliminated laundering operations. Performance has remained consistently reliable Think what this might mean to YOU as a definite help toward continuity of modern train service. » » » »

WESTINGHOUSE AIR BRAKE CO.

WILMERDING, PENNSYLVANIA



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Railway Age

With which are incorporated the Railway Review, the Railroad Gazette and the Railway Age-Gazette. Name registered U. S. Patent Office.

Vol. 113 August 1, 1942 No. 5

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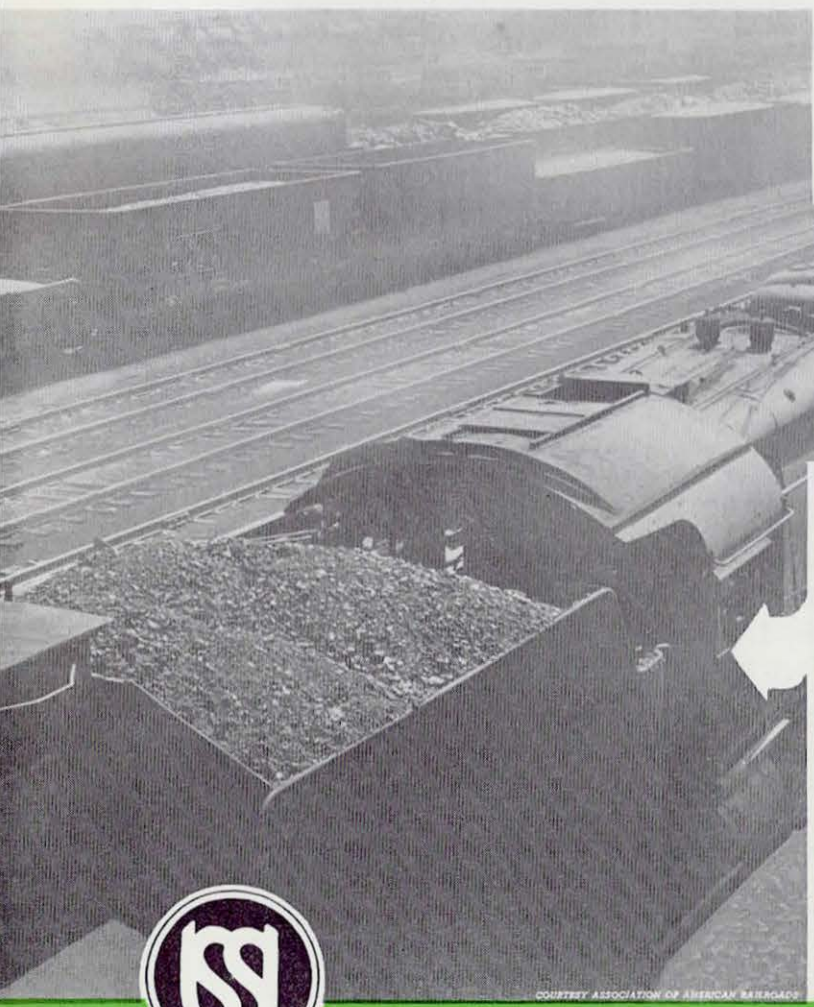
The Railway Age is indexed by the Industrial Arts Index and also by the Engineering Index Service

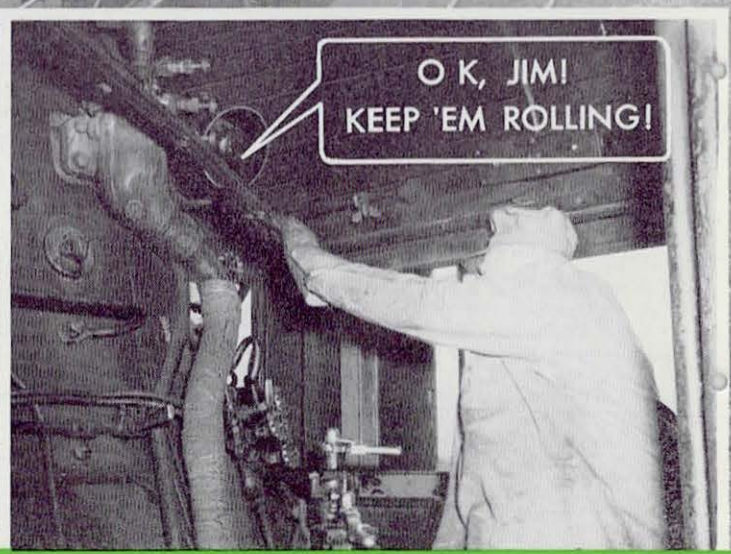
PRINTED IN U. S. A.

"On numerous occasions since the installation of the new communication system, it has been necessary to suspend operation at the eastward hump due to dense fog while operation at the westward yard (equipped with "Union" Yard Communication) continued without interruption."

Reduce Yard Delays with "Union" YARD COMMUNICATION

BECAUSE more and more wartime traffic is being transported by rail, it is imperative that yards be operated at peak efficiency. "Union" Yard Communication provides a modern method of yard control which reduces delays during normal yard operations and is invaluable when fog, smoke or other adverse weather conditions are experienced. With this system, the yardmaster may speak directly to the crew of any equipped locomotive regardless of where it is within the yard area. And, since there is no time lost in the delivery of or response to routine or emergency orders, motive power and rolling stock are used to maximum advantage.





COURTESY ASSOCIATION OF AMERICAN RAILROADS

UNION SWITCH & SIGNAL COMPANY

SWISSVALE, PA.

NEW YORK CHICAGO ST. LOUIS SAN FRANCISCO

The Week at a Glance

TRAVEL AT ALL-TIME HIGH: Passenger traffic in May exceeded that of May, 1920—and the railroads are headed for all-time records in this area of their service, which are already established in freight transportation. But the passenger job is being done today under the terrific handicap of inadequate rolling stock, as an editorial herein points out. Each passenger-carrying car in the first five months this year was made to perform about 40 per cent more service (passenger-miles) than in the equivalent 1920 period, and the job was done with less congestion, on the average, than in 1920. If the railroads had as many passenger cars today as they did, say, 15 years ago, there would be no crowding—and they would have these cars, had their customers not so largely left them to ride on rubber. Which is a thought that recent newcomers to the rails might bear in mind should they be inclined to criticize some occasional congestion when they return, in their time of need, to the "old reliable."

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FACTS FOR EMPLOYEES: The present time is an auspicious one for enlarged efforts to bring home to employees the facts determining the continuance of their jobs—with maintenance of high American living standards, and political liberty. Such is the counsel of one of the country's great authorities on industrial relations in a recent book, which is reviewed in an article herein entitled "What to Tell Employees, and How." Our report outlines very briefly some of the methods available for this job, advocated by this authority, with the dangers against which he warns—matters which, of course, are given in much more practical detail in his book.

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JOURNAL BEARING STUDY: To secure increased service from present journal bearings, to reduce the requirements of scarce metals used in these bearings, and to probe the possibility of substituting a ferrous back for copper-bearing alloys—such is the objective of an A.A.R. research project, described herein, which has been going on since last January. Considerable progress has already been made toward these goals, as the report reveals.

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ON THE T. P. & W.: The distinctive nature of the train service working rules agreed to on the Toledo, Peoria & Western is explained in a brief article herein—together with some details of operating changes the federal management has effected, which are producing rather notable results.

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FAIRNESS TO SHIPPERS: Most shippers are giving full co-operation to the railroads, to help them secure the maximum utilization of equipment in behalf of the war effort. Most railroad men are similarly striving to do their utmost to meet their customers' requirements. But what about traffic solicitors who tell shippers that talk of car shortages is "bunk"? What about failure of railroads, in some instances, to provide "vigilance committees" with the information they need properly to perform their work? An editorial in this issue suggests that failure to co-operate fully with shippers who are striving so hard to help the railroads, and their country, is a shortcoming which conscientious railroaders will avoid.

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WOULD SAVE ENGINES: Mr. Eastman is now concentrating on freight locomotives. For one thing, he has his staff checking the situation—on every railroad, and every division—not only to encourage the most efficient practices, but to learn where spare power exists. It is expected that the practice of leasing surplus power to roads which need it may be extended.

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CLAIBORNE RAILWAY: The 50-mile line the Army railroaders have built, and are operating, between Camps Claiborne and Polk, is described and illustrated herein, in an article by our engineering editor. The line was one which "couldn't be built"—except at exorbitant cost. Nevertheless, it was built—and not at exorbitant cost. An editorial herein characterizes the job as "an achievement of which any long-standing railway organization might well be proud." Our Army, it is clear, is going to be backed up by efficient railway service right up to its point of contact with the enemy—by alert civilian railroads at home, and by equally competent military railway operation wherever conflict calls.

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RALPH BUDD EXPLAINS: One reason why the railroads have done so well with war-time traffic is that there are both railroad men and shippers who well remember the transportation lessons which the last war taught. Then again, the railroads "went to war"—not last December 7, but nearly three years ago. So Ralph Budd explained to the A. S. C. E. at Minneapolis, in an address reported elsewhere in this issue. He concluded with a further appeal that priority authorities allocate to the carriers the materials essential to continued efficient service.

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ANTI-MONOPOLIST ARNOLD: Thurman Arnold's bitter and inaccurate diatribe against railroad rate-making procedure—which was reported in these pages last week—is discussed editorially herein. It is pointed out that Mr. Arnold knows that the law distinguishes between industries which are naturally competitive and those which are naturally monopolistic—and that railway rate-making practices are made necessary by the fact of their regulation. Nevertheless he assails them with false accusations—as if their procedure were akin to predatory monopolistic practices in restraint of trade, similar to "rackets" of various kinds; which any informed person knows is contrary to fact. Our editorial also observes, however, that general business opinion on this relatively simple question is hardly any more consistent than Mr. Arnold's.

WHAT THE PUBLIC THINKS: A thermometer, testing the warmth (or its absence) of the opinion of the influential public on the present quality of railroad freight service, is afforded by more than a thousand letters *Railway Age* received—following the distribution of the "Freight Progress in War" issue among shippers and governmental authorities. These letters are analyzed in an article in these pages. Most of the expressions (including those from high governmental authorities) are pleasingly laudatory—but a few of them contain pointed criticisms. The service is excellent, but it is not quite perfect—and friendly advice on its improvement will, no doubt, be profitably received.

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WAR TESTS TRANSPORT: While investigation of the "comparative economy and efficiency of the various forms of transportation" is proceeding with the Transport Study Board by the process of dialectic, these same agencies are being contemporaneously tested in the realistic laboratory of war. The leading editorial in this issue draws attention to the fact that China, despite her famine of materials, nevertheless builds railways wherever at all possible—in preference to relying on transport planes or trucks. The reason for preferring railways—ability to deliver a large *net* traffic of war goods (over and above fuel to operate the transportation machine)—is brought out in the editorial. It is suggested that this country will be fortunate if its government officials avoid Mr. Hitler's mistake of underestimating the primary importance of adequate railway transportation.

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8.9 TONS PER LCL CAR: The railroads in May averaged nearly 9 tons of revenue freight per revenue car. Mr. Eastman, in making public this heartening performance, indicated his belief that ODT Order No. 1 played an important part in securing this result. Also revealed was the performance of those carriers which topped the list in high loadings per car—with the E. J. & E. and Cotton Belt heading the Class I list. Quite a number of roads averaged 10 tons or better per car in the first month of required heavy loadings. Twenty-four carriers fell below "bogey," and an inquiry is being made to discover why.

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STUDY BOARD MONEY: The sentiment of the Lower House of Congress seems to be that the Transport Study Board ought to complete its investigations with the $643,000 now available to it. House conferees have objected to Senator Barkley's suggestion that present House sentiment could not bind future Congresses in this regard.

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WOULD PULL OFF LOCALS: The ODT is looking into places where accommodation passenger trains are still persisting, in areas where good bus service is available. The transportation conservators would end such duplication.

"To Keep 'Em Flying . . . We Must Keep 'Em Rolling"

The Challenge and Opportunity of the Present Crisis to All Who Can Help Increase Railroad Efficiency

★

Railroad men are now virtually part of the nation's armed forces.

War expenditures this year are taking about one-fourth of national production and income. But government freight and passengers move much longer distances than commercial traffic. Hence, the one-fourth of the nation's production and income being devoted this year to war may be requiring one-half of the railway service being rendered. And the proportion of railway service devoted to war will increase indefinitely.

Thus one-half of the railroad plant — yards, tracks, cars, locomotives, signals — is already as much a part of Uncle Sam's war machine as are guns, tanks, bombers. One-half of each railroad man's time is devoted to the Army, the Navy and the Air Force as truly as if he wore a uniform.

This is a railroad war — depending far more upon efficient railroad service than any previous war.

United States Senator Schwartz of Wyoming coined a fine railroad slogan in a recent letter to the *Railway Age* when he said: "To 'Keep 'em Flying,' we must 'Keep 'em Rolling.'" Airplanes, trucks, ships are more involved in actual combat than railroads — and so it is pictures of them, rather than of trains, which receive most attention in the illustrated newspapers and magazines. But planes, trucks, ships (as one of our railroads recently emphasized in an advertisement) have to "start their trips by train" — in the form of coal and iron from the mines, then through every step in fabrication, and as finished products to tidewater.

Mechanized warfare requires maximum production by heavy industry; and heavy industry can be served adequately only by railroads. Germany, as newspaper correspondents just returned are disclosing, has learned belatedly that spectacular superhighways make good pictures, but that a nation to function effectively in modern war must have efficient railways. And the Nazis are trying feverishly to restore the depleted equipment and efficiency of the German Reichsbahn, which they neglected while building up air lines and "autobahnen."

Railroad performance is largely determined by the ingenuity and effort of railroad men.

As vital and integral a part of the war effort as they a[re] railroads are not the object of official government attent[ion] same extent as other parts of it. This is because, as ye[t] of railroad transportation has been felt, while plan[es] guns, soldiers are needed immediately in much [...]

Efficiency FOR VICTORY

Above—Excerpt from Editorial July 4th issue of Railway Age

GM Diesel Operation Meets the Demand

FOR GREATER TRANSPORTATION EFFICIENCY . . .

GENERAL MOTORS LOCOMOTIVES

THIS is a railroad war. Without transportation all war activities would be impossible. American railroads are doing a grand job but the need for even greater efficiency will be more critical in the months ahead than in all past railroad history. New and better ways of doing this transportation work are needed and General Motors Diesel Locomotives are more than meeting the demands in all classes of service.

GM-5400 Hp. Diesel Freight Locomotives are making possible reductions in train miles as much as 50 per cent — increased hauling capacity — faster schedules with fewer service delays — high availability — release for other important services as many as five heavy steam locomotives for each Diesel operated — increased carrying capacity of existing track facilities without expensive replacements with heavier rail or rebuilding of bridge structures.

In the *conservation of vital materials,* one ton in a GM Diesel Locomotive will do the work of more than two tons in a steam locomotive.

And it may be safely predicted that the more efficiency the railroads attain during the war, the stronger they will be for meeting conditions after the war.

TRANSPORTATION IS VITAL FOR VICTORY

ELECTRO-MOTIVE DIVISION

GENERAL MOTORS CORPORATION — LA GRANGE, ILLINOIS, U.S.A.

RAILWAY AGE

Efficiency FOR VICTORY

War Tests Carriers' Relative Efficiency

A nationally-known book-reviewer recently published a commentary in a metropolitan newspaper on a novel about a railroad "boomer". He approved the book and expressed his regret at the demise of the railroads, which he considered a former romantic institution, somewhat on the order of the stagecoach, but, unfortunately, "tremendously expensive and wasteful."

This reviewer's opinion is not unique with him—as witness the torrent of publicity about transportation by airplane "trailer freight trains"; with many people seriously urging our military leaders to cease worrying about submarine sinkings of merchant ships, and to substitute transport planes; and with the miraculous transportation capacities of motor vehicles being similarly propagandized.

In marked contrast is the attitude of military people dealing with the hard reality of tremendous quantities of goods to be moved. This is largely a war of transportation—and it is a safe assumption that the choice among the several agencies which military leaders are making is as close to the facts of comparative efficiency and economy as they can make it. Their main reliance for inland transportation in every instance—not only in America, but all over the world—is the railroad. Where they adopt highway or air transportation, it is always from necessity—not choice.

There is a famine of steel and machinery in China. Nevertheless, China is building railways wherever she can—despite the fact that they require much more steel than alternative forms of transportation. The only explanation must be that railways are more effective.

In a remarkably revelatory article on army transportation in this country, in its July 4 issue, Collier's Weekly reported that "there is a general but mistaken notion that trucks free an army from railroad transportation." It recorded a test case of a military movement from Washington, D. C., to Texas by rail and by truck. The railroad movement was accomplished in 60 hours—that by truck in 16 days.

Neither trucks nor airplanes can be effective agencies of transportation if they have to carry their own fuel. Only railways and ships can haul their own fuel (for round-trips) and still have left a large capacity for cargo. A highway is being built to Alaska, but a railway is under survey, because army authorities realize that so much of truck capacity is required to carry fuel that the highway can never be a really effective means of freight transportation.

In Germany—which gave too much credence to voices proclaiming the sufficiency of air and highway transportation—it has become necessary to give locomotives the same priority as armaments.

Instances of this kind could be multiplied, showing how this war in every part of the world is proving the superiority of railways to any other form of inland transportation wherever transportation in quantity is required. Planes and trucks are valuable adjuncts, not substitutes. War correspondents and military commentators are awake to this reality. If other publicists, the War Production Board and the American people can be brought to realize and act upon it, so much the better for America. Victory in a war of transportation must go to the side most realistic about transportation.

Record Passenger Traffic

Increases in travel by railway are occurring so fast that the railways apparently will be called upon to handle more passenger traffic in 1942 than in any previous year. If they satisfactorily succeed, it will be in spite of great difficulties, because diversion of travel to highways caused a sharp reduction in cars available for passenger-carrying by rail.

Incomplete data indicate that passenger traffic (passengers carried one mile) had begun in May to exceed all previous records. The previous May record made in 1920 was 3 billion 800 million passenger-miles, while the traffic in May, 1942, apparently exceeded 3 billion 900 million passenger-miles. In 1920, when travel by rail was the largest in history, it amounted in the first five months to 17½ billion passenger-miles, while in the first five months of 1942 it was about 16 1/3 billion.

In 1920 there were available 41,572 cars (including Pullman cars) for handling passengers; and in 1925 there were 41,907. During this five years, however, travel by rail declined 23 per cent. There then began a decline in passenger-carrying cars. In 1930 the number was 39,445, but travel by rail was 43 per cent less than in 1920.

When the loss of railway passenger traffic stopped in 1933, it had become 65 per cent less than in 1920. Passenger-carrying cars had declined to 34,815, or only 16 per cent, the loss of traffic available per car being 58 per cent. In 1932 the railways began introducing air-conditioning. In 1934 they and the Pullman company began introducing light-weight, streamlined, air-conditioned and otherwise luxurious new trains. Train speeds were increased throughout the country. General business improved. Then preparations for war began; and in 1941 travel by rail had increased 80 per cent over 1933 and was larger than in 1930. But although the number of passenger-carrying cars had declined to less than 28,000, materials for building new ones were first restricted and then made unavailable.

And now has come an increase over 1941 of 60 per cent in the first five months of 1942 and of 80 per cent in May. The demands being made on passenger equipment are shown by the fact that in the first five months of this year each car rendered a service equivalent to carrying 3,925 passengers one mile each day, as compared with 2,774 in 1920, with 2,587 in 1941, and with only 1,040 in 1933; while in May each car rendered a service of 4,525 passenger-miles daily, as compared with 2,925 in May, 1920, with 2,501 in May, 1941, and with only 1,034 in May, 1933.

The increase in passenger train speeds has helped accomplish these increases in service; but much more has been necessary. Locomotives and cars must be kept moving more continuously than ever, and the number of cars per train has had to be increased. Average revenue passengers per car increased 27 per cent in the first quarter to 18.4 passengers; but, as this figure shows, most cars have not been crowded, although there has been some crowding in territories having the largest traffic increases.

The railways thus far have done a good job in handling the hugely increased traffic. And a public which so largely deserted them to ride on rubber can make no reasonable complaints when unable to get all the service it wants on rails.

Railway Men in the War

When this nation and its allies take the offensive their advance can be no faster and more certain than is permitted by their lines of communications and supplies, and in most cases these lines will be the railways.

It is encouraging, therefore, to know that the American army has not overlooked the importance of rail communications—that, on the march, wherever it may go, it will be backed by strong railways at home, and strong, well-trained railway construction and operating battalions in the field. At home, the railways, under private management, have risen to unprecedented peaks of efficiency, and while achieving this record have released hundreds of their trained officers and employees to the various branches of the fighting forces. For "advance" communications, railway battalions are springing up over the country under the direction of the Military Railway Service, and, under military conditions, are being trained and welded into compact, highly-efficient operating units, that will be prepared for action within or behind any theatre of operation to which they may be assigned.

The first of these railway battalions organized, and the first of its kind in the United States Army, was the 711th Engineer Battalion, Railway Operating, which was activated on July 18, 1941, nearly seven and one-half months before the opening of hostilities at Pearl Harbor. What this battalion, with only a nucleus of trained officers and men at the start, has accomplished to the present time should be an inspiration to all railway men, and, as typical of what can be expected of other such battalions, should instill a high degree of confidence in the other branches of our fighting forces.

Within forty-eight days after its organization this battalion had completely rehabilitated the 4½-mile Quartermaster railroad serving Ft. Belvoir in Virginia, work involving the replacing of thousands of ties, the installation of 7,000 tie plates, the rebuilding or repairing of several bridges, the installation of 20 culverts, and the relining and surfacing of the entire line, including the placing of 9,000 cu. yd. of ballast. But this was small compared with its second achievement—the building out-of-face of a 50-mile military railroad between camps Claiborne and Polk in Louisiana. What was done here, which is described in an article in this issue, is an achievement of which any long-standing well-trained railway organization might well be proud.

Arnold on Railways

Thurman Arnold's diatribe against the railways and Transportation Act of 1920 (quoted in *Railway Age*, July 25, p. 149) illustrates that the New Dealers are not neglecting non-war matters, and therefore nobody can afford to. We endorse efforts to re-establish competition in naturally competitive industries. But why pick on the railways?

As a lawyer, Mr. Arnold knows that English and American law always has distinguished between monopolistic and competitive industries, has treated railways as monopolistic, and has therefore subjected them to forms of regulation largely included in the Transportation Act. His assertion that this act "guaranteed as a special privilege the return of 5¾ per cent upon the inflated value of railroad property" is untrue. The act merely directed the Interstate Commerce Commission, "under honest, efficient and economical management," to allow earning of a "fair return" on a "fair valuation," both return and valuation to be determined by it. The Commission held 5¾ per cent *would* be fair—but never let it be earned.

The estimate Mr. Arnold quoted, that the Transportation Act cost $4½ billion in increased cost of living and so on, was baseless. Under government operation rates were so advanced because of increased operating costs that railway gross earnings increased from $4 billion in 1917 to $5 billion $145 million in 1919. During the twenty years following 1920 they averaged only $4 billion $840 million—$300 million a year less than in 1919, not to mention the large deficits government operation incurred in 1918 and 1919 for the people to pay. That there was no "guarantee" of 5¾ per cent is proved by the fact that during this twenty years the railways received an average of only about 3½ per cent.

Mr. Arnold criticised the "conference or bureau method of making railroad rates." No rate the railways agree on can be made effective until approved by the Commission; most rates are actually fixed by it. Why demand competition or condemn monopoly in rate-making when such regulation makes both impossible? Why criticise the railways for using methods not only approved by, but necessary to, regulation?

Does Mr. Arnold favor substituting competition for regulation in transportation? If so, why doesn't he say so? And would he withdraw all government aid to carriers competing with the railways? Obviously, we can't have fair competition and government subsidies to part of the competitors.

It would be a great help to public discussion if the New Dealers would make clear just what they want. One day they advocate drastic control of private business and huge government "investment" in competition with it—policies of totalitarianism and socialism. The next day they say they want to maintain private enterprise, denounce industries subject to strict regulation for not competing, and start anti-trust prosecutions of other industries for agreeing to do things the government has asked them to agree to do. And every day they let organized labor use monopoly and worse practices for which they would prosecute any industry. They are consistent only in attacking business, however it serves government and public.

This paper favors the time-honored English and American policies of regulating naturally monopolistic industries and enforcing competition in naturally competitive industries, believing that only under them can private enterprise function efficiently and survive. If these policies are favored either by New Dealers or business in general, both find numerous ways of talking without saying so.

Co-Operating With Shippers

Shippers are doing a remarkable job in improving car handling and loading. A. W. Vogtle, president of the National Association of Shippers Advisory Boards, has well said that "the remarkable degree with which cooperative efforts have been perfected among the carriers themselves, and especially among carriers and shippers in the period since the last war, could well be a model for all business. I doubt if there is any parallel in modern business history of such customer relationship as now exists between the railroads and their shippers."

The shippers have set up vigilance committees in every important center and in hundreds of smaller communities. These voluntary workers police car handling among shippers, and thousands of cases can be cited of improvements in this important factor of transportation that have been brought about by their efforts. That railway managements recognize the value of these vigilance committees is unquestioned. Railway officers have said so on numerous occasions. However, in recent shippers' advisory board meetings several vigilance committee chairmen have reported that their activities are hampered by inability to get car numbers from the railways and other pertinent information as to cars held over 48 hours at certain points. Such information is essential in their work, and, as it is designed to increase the utilization of cars, the railways should co-operate, even if it involves extra expense, in seeing that the vigilance committees are supplied with the necessary "ammunition." Their work involves extra expense for the shippers who are giving their time to it, and the railways should go full measure in reciprocating.

In addition, shippers are giving reports with increasing frequency of railway traffic solicitors telling them the railways have plenty of cars, and that talk of shortages is "pure bunk." Railway managements should see that representatives of their lines are correctly informed and not allowed to confuse shippers by making conflicting or erroneous statements. There is something wrong in any railway organization any member of which does not know that there are not now "plenty" of cars.

The First Army Railway Battalion Builds a Training Railroad

Building the High Trestle Over the Gulf & Red River Railroad, One of 25 Bridge Structures On the New Line

Completes 50-mile line between Camps Claiborne and Polk in Louisiana, which will be proving ground for thousands of men in army railway service

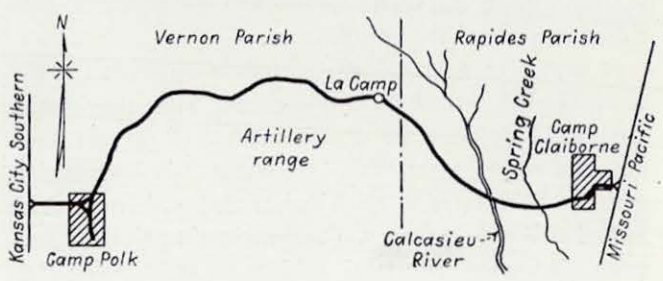
THE driving of a golden spike in the Claiborne & Polk Military Railway on July 11, a 50-mile single-track line connecting camps Claiborne and Polk in Louisiana, marked the completion of the first army-built, strictly military railroad in the history of the nation—demonstrated what the Military Railway Service can do in theatres of military operation if called upon—and laid the groundwork for the training of thousands of officers and men in railway operation and maintenance under war-time conditions. Significant as this new railroad itself, is the fact that it was built by the 711th Engineer Battalion, Railway Operating, the first battalion of its kind in the United States Army, and the forerunner of many other such units being or to be activated in the country under the Military Railway Service, of which Brig. Gen. Carl R. Gray, Jr., is general manager.*

The story of the Claiborne & Polk Military Railway concerns a line that it was said "couldn't be built," except at exorbitant cost and in the face of major difficulties; a line that was built in spite of these difficulties by an organization designed primarily to operate and maintain an existing railroad, rather than one schooled in construction; and a line that has amassed its own motive power and rolling stock and is now operating smoothly under military personnel, organized on a typical railroad division basis.

The new line, as might be expected, was not built to trunk-line standards as regards rail, grades, alinement and certain other physical features, but rather only adequate in these regards to serve as a training grounds for military men in railway construction and operation, while at the same time, provide interchange and supply service between the two camps joined. Speed was also a factor in its construction, every consideration being given to completing the line and putting it into service at the earliest possible date, leaving many refinements to be made following the establishing of through train operation.

Ruling Grade 2 Per Cent

A fraction of a mile less than 50 miles in length, the railroad extends in a general east and west direction, with Camp Claiborne at its east end and Camp Polk at its west end. Traversing generally rolling low-lying country, the line has an undulating grade line with a



Sketch Map of the New Claiborne and Polk Railway

* An item on the celebration marking the completion of the line on July 11 appeared in the *Railway Age* of July 18, page 109.

ruling grade of two per cent in each direction, one-half of one per cent heavier than had been anticipated originally—the change having been made during the course of the work to minimize grading and speed completion. Except for five curves of 6-deg. to meet special conditions, maximum curvature on the line is 4 deg.

At Camp Claiborne, where the road connects with the Missouri Pacific, a classification yard, a wye for turning locomotives, and an engine terminal were built, with spur tracks serving special camp facilities. Swinging west immediately beyond the terminal area, the line extends over generally high country for a distance of 2.6 miles to a crossing of the Red River & Gulf Railroad, a line which the army had first contemplated taking over, extending and operating into Camp Polk. Up to and beyond this crossing to about Mile 8 was entirely new construction. West of this point for approximately 15 miles, the railroad occupies the old roadbed of the Hillyer-Deutches-Edwards Lumber Company railroad, an abandoned logging road, beyond which it strikes out into virgin, low-lying country which presented many difficulties in construction. At Camp Polk, at the west end, the line connects with the Kansas City Southern, thus giving it terminal connections with two important Class I roads.

Not to Trunk Line Standards

In general, the line was laid out following the contours of the ground as much as possible, sacrificing alinement and grades within limitations to minimize grading and speed construction, and not unmindful of the fact that train operation over the line under military regulations will seldom exceed 30 to 35 miles an hour. Thus, fills on on the line, with few exceptions, have a maximum height of about 20 ft., while cut depths are seldom more than 15 ft. By following the higher contours also, pipe culverts sufficed instead of bridges in many instances, and the total grading was kept to approximately 600,000 cu. yd. Final standards call for subgrade widths of 16 ft. on fills and 20 ft. in cuts, with 1½ to 1 side slopes

Hundreds of Engineer Battalion Troops Gained Experience in the Construction of the New Railroad

The Entire Operating Personnel of the Railroad Are Members of the 711th Engineer Battalion, Railway Operating

in both cases, but these standards were sacrificed at many points in the interest of speed during construction, and the final widening of fills and cuts will form a part of the work of the track forces in the months ahead.

Track construction on the line consists of 75- and 80-lb. second-hand rail throughout, second-hand No. 8 turnouts for the most part, and second-hand 4-hole angle bars, while all bolts, spikes and spring washers were furnished new. The track is not equipped with anti-creepers, although it is expected that some form of anti-creeping devices will be necessary to avoid joint troubles and difficulty with alinement and surface.

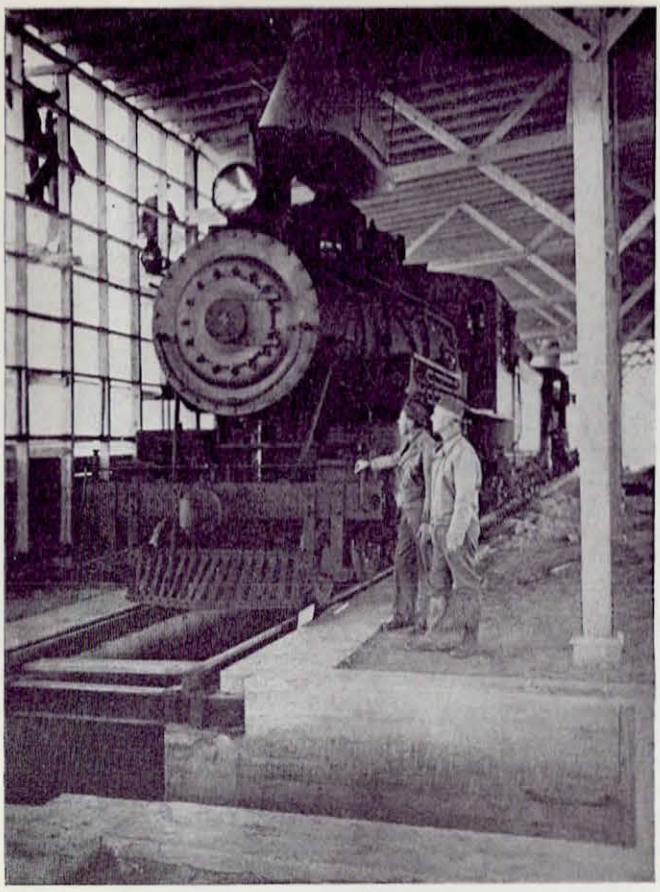
The ties are of a wide variety of woods, generally 6 in. by 8 in. by 8 or 8½ ft. About 60 per cent are treated with creosote, and about 75 per cent, including all of those on curves, are equipped with second-hand tie plates. In the interest of speed, the ties were laid as received, without regard for segregation of treated and untreated varieties. Ballast throughout is of pit-run gravel, including about 40 per cent sand, the ultimate aim being to place from 6 to 8 in. of this material beneath the ties.

Grading Started Under Great Handicaps

From the outset, difficulties were encountered and overcome in the construction of the new line. It had been said by local civilian engineers that the building of the line, particularly its west half, was impracticable, but, this, rather than acting as a deterring factor, presented a challenge to the men of the 711th Engineer Battalion, who were not seeking a line that would be easy to construct, maintain and operate, but rather one that would afford maximum experience in all of the many aspects of railroading.

Reconnaissance for the line was undertaken in June, 1941, and, proving the practicability of the undertaking, authority to build the line was received promptly. By August, survey parties were in the field, and were followed closely by intensive activity grubbing, clearing and grading, the early grading being limited only by a total lack of motive power and grading equipment. Some rails, ties and angle bars, together with some tools and a few railway cars, were available to the battalion at the start, but there were no spikes, bolts, tie plates, spring washers or turnouts, and no locomotives. Most important, there was no earth-moving machinery.

Despite this shortage, much of the Claiborne yard



All Locomotives On the Railroad Will Be Maintained at the New Claiborne Terminal Enginehouse

area was graded and ballasted by manpower, employing shovels, trucks and flat cars; the cars, loaded and empty, being pushed and pulled about by trucks or platoons of engineer troops. Only one piece of Construction Quartermaster's equipment was obtained to aid in the yard fill construction. When it was found impossible to secure army earth-moving equipment to start the main line work, two tractor bulldozers were rented from a local contractor for this purpose. Finally, the first army grading equipment began to arrive piecemeal, and, as additional right of way was secured, this equipment was moved about on the line to insure its use to the best advantage. At the peak of the work, the equipment available, all of which was operated by 711th engineer troops, included nine 9-yd. tractor-scraper units, three 12-yd. tractor-scraper units, four 6-yd. tractor-scraper units, eight tractor bulldozers and four draglines, supplemented by a large number of army trucks.

Adding to the difficulties of construction was the unfavorable character of the soil in the territory traversed, which, while including some sand in the higher levels, was largely of muck and gumbo, with interspersed layers of quicksand at many points. A long rainy season, which at one time saw a precipitation of 9 in. in 30 hr., also added greatly to the difficulties encountered, bogging down tractors and trucks alike, and, at places, making the draglines, operated on corduroyed roadways on the center line of track, the only practicable means of building fills.

At many points the natural ground was so soft that, in order to sustain the fill, it was necessary to support it on a solid log mat built over the ground surface. At other points, large logs, laid end to end along the toes of the embankment, were used to confine deep embankment footings of coarse sand brought in for the purpose. At still other points, timber cribbing was the only practicable recourse to get across low-lying soft spots.

Day after day, in spite of these difficulties, the engineer troops of the 711th, assisted by the troops of several General Service Engineer battalions, pushed ahead, working generally from both ends of the line toward the middle, but also setting up construction camps and attacking the work at many scattered locations. At one time work was under way at as many as 25 points, taking advantage of the forces and equipment available and jumping from point to point to seek the most favorable conditions at the moment. The outlying construction points along the line were reached in most cases only by long, circuitous access roads cut through the soft wooded terrain, and even many of these became impassable in wet weather and required recourse to extensive corduroy construction.

How Track Was Laid

As the roadbed was completed, the track was pushed out from both the Claiborne and Polk ends, the first track being laid on September 4, 1941, in the Claiborne yard. In subsequent track laying on the main line, the ties were brought out to the rail heads on cars and were then trucked ahead to position, employing several types of army trucks. For the intermediate sections of embankment between rail heads, ties and a large amount of rail and fastenings were trucked or dragged through the access roads, employing every practicable means to expedite the final closure of the line.

Awaiting the arrival of a Burro rail-laying crane, which was not received until January, most of the first rail was laid by tong gangs of troops. When the Burro crane and the first motive power arrived on the line, the work on the Claiborne end was speeded up, work trains being used to supply the main rail head, and the crane, full-revolving, setting the rails in track directly from the rail cars. Working in this manner, with the aid of as many engineer troops as were required, from 250 to 300 rails were laid on many days.

At no time did the troops have the aid of power tools, such as pneumatic spike drivers and pneumatic wrenches, now so commonly used in large-scale rail-laying work. Likewise, all surfacing of the track was done without power tools. Ballast was distributed from hopper-bottom cars and was spread by means of ties blocking the rear truck wheels, following which the track was jacked up through the ballast and surfaced with hand shovels.

Subsequent work on the track will include a large amount of bank and cut widening, which will be done largely by bulldozers, draglines, and a Jordan spreader rented from the Missouri Pacific. It will also include refinements in both line and surface, which will be carried out with power jacks and tampers if this equipment is made available, as has been requested.

25 Bridges on Line

Bridges mark an outstanding phase of the new line construction, not because of their number or size, but rather because of the generally high standards of material and workmanship employed, the latter, in spite of the fact that the majority of the troops employed had had little or no prior experience in bridge construction or any form of heavy timber work. Altogether, there are a total of 25 bridges on the line, this number having been reduced from a first estimate of approximately 50 bridges through adjustments in alinement and the judicious use of large-capacity culverts. Of the 25 bridges,

all but one are located on the 15-mile section of the Hillyer-Deutches-Edwards logging road, and even here, a number of former bridges were abandoned through the use of culverts.

The longest bridge on the line extends over the Calcasieu river, being 2,126 ft. long. This bridge is made up of 4- and 5-post bents, the bents resting on cut-off piles of an old bridge on the old H.-D. & E. railroad. The maximum height of this structure above the ground level is approximately 15 ft.

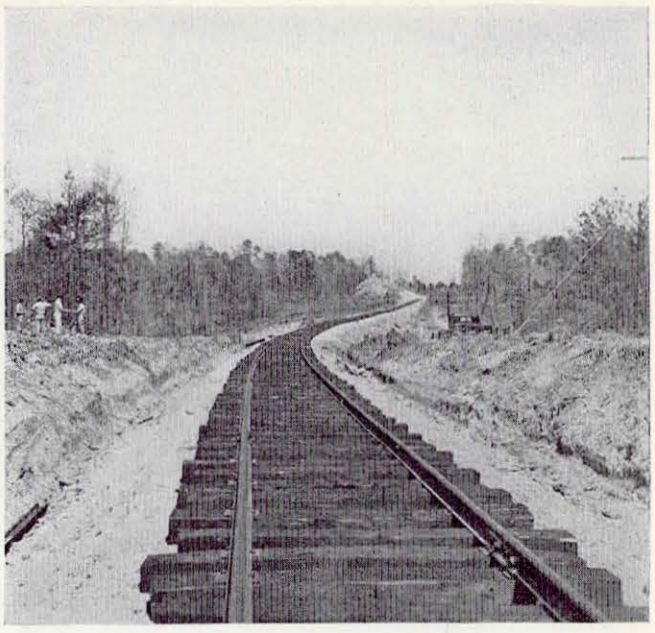
The second largest bridge on the line is a 785-ft. pile structure over what is known as Spring creek, this structure having a maximum height of about 20 ft. This structure, except for final work on the deck, was built in 17½ days with the aid of a pile driver rented from the Missouri Pacific, and a compressor and a set of power tools secured from local contractors. The third largest bridge carries the railroad over the single-track line of the Red River & Gulf in a deep cut, this bridge being 130 ft. long and including a 32-ft. second-hand deck girder span, with maximum under-clearance of approximately 25 ft.

All of the bridge structures are of creosoted timber, are designed for Cooper's E-50 loading, and are of the open-deck type with 7-in. by 9-in. ties. Most of the bridges were built far in advance of the rail heads, and the only important deviation in their construction from present-day recommended practice was the framing of many timbers on the ground, a deviation that might well be expected under the circumstances. Except in the case of a few of the structures near the ends of the line, one of the greatest problems encountered in the bridge work was the long and difficult hauls of materials to the bridge sites. This hauling was done largely by trucks, sleds and other types of carriages over the access roads, frequently under the most unfavorable conditions.

Culverts on the line are largely of corrugated iron and steel pipe, in sizes up to 60 in. and in multiple runs where necessary. All pipe of more than 36 in. in diameter was strutted during construction and was carefully backfilled.

Working under a blazing sun, with high humidity and a temperature in excess of 100 deg., several hundred troops, working from the east and west rail heads from

The Lack of Suitable Grading Equipment In the Early Stages of the Work Held Up Operations Considerably



General View of a Section of the Railroad, Before Ballasting and Final Cut and Embankment Work

early morning until 10 p. m., closed in the final gap in the line on July 10. The following day, in a ceremony made impressive by the presence of several thousand troops of the 711th Engineer Battalion and other aiding units, Brig. Gen. Carl R. Gray, Jr., drove a golden spike in the final rail to be laid. Following this, (on the 11th day of the 7th month) Locomotives No. 7 and 11, significant of the 711th Battalion, were brought to a coupling over the last rail, where the commanders of camps Claiborne and Polk, standing on the pilot steps of the two locomotives, saluted and joined hands, marking the completion of the line.

Well-Equipped Engine Terminal

The principal terminal, repair and dispatching facilities of the new line are located at Camp Claiborne, and include six classification yard tracks with capacity for 150 cars; an enginehouse and machine shop with three house tracks; two car repair tracks; a wye for turning engines; water and fuel-oil tanks; a yard office and a dispatcher's office. The most significant of these facilities is the enginehouse, a frame structure, 250 ft. long by 95 ft. wide, with open ends, but with side enclosures throughout of Celeglass, a flexible glazed wire mesh admitting light but affording full protection against the weather. Of the three parallel tracks in the house, each of the outside tracks is equipped with two engine inspection pits, one of these pits being fitted with a wheel drop table. Other features of the enginehouse include a well-equipped machine shop for making Class 4 and 5 repairs, a storehouse, and a boiler room with a stationary boiler, air compressor, and washout and refill equipment.

The equipment available for the operation of trains on the new railroad includes seven oil-burning 79-ton ten-wheelers, secured from the Texas & Pacific Railway; two new oil-burning 85-ton Consolidation-type locomotives secured from the Lima Locomotive Works; two coaches and two combination cars; 16 box cars; 50 flat cars; 25 gondola cars; 12 tank cars and 4 refrigerator cars. In addition, four box cars and two refrigerator cars have been converted into cabooses by the mechanical forces of the 711th Battalion, these cabooses being

(*Continued on page 178*)

The Freedom of Movement Through Busy Terminals Testifies to the Wartime Efficiency of Transportation in which Shippers Are Playing a Prominent Part by Complete Co-operation

What America Thinks of Freight Service in War-Time

More than a thousand national leaders and shippers, commenting on "Freight Progress in War" issue, afford gage of effective public opinion on railroad service

ON May 23 the *Railway Age* published its "Freight Progress in War Number" detailing the great accomplishment of the railways, with shipper co-operation, in handling satisfactorily the largest traffic, and the largest increase in traffic, in history. More than a thousand letters since received by this paper commenting on the issue, and especially on the achievement of the railways, indicate a highly favorable official and public attitude toward the rail carriers.

Moving this unprecedented volume of freight efficiently, when efficient transportation is more vital to our nation than ever before, is not merely a matter of shuttling cars and locomotives about. As shown in the Freight Progress in War Number, it includes provision of a sturdy right-of-way and a marked increase of efficiency in maintaining track. It means efficient and properly located coal and water stations, and installations of signals and centralized traffic control that will keep the trains rolling with a minimum of stops and delays. It means the sweat and strength of the thousands of craftsmen and laborers who, in shops and enginehouses and on the rip tracks, keep cars and locomotives in such a condition to run such as was never achieved before. It means long hours and the exercise of every ounce of intelligence and ingenuity possessed by the officers of the engineering, signaling, and mechanical departments, and of operating and transportation officers who make use of the tracks, the signals, the cars and the locomotives provided for them by the others. It means the utmost care in the supervision of the host of new employees necessary to accomplish this gargantuan job.

In other words, it means the utmost co-operation and hard work by everyone connected with the railways in whatever department or whatever capacity, and the co-operation of shippers and receivers of freight in prompt and efficient loading and unloading. It means, also, that the ingenuity and resourcefulness of the manufacturers who supply the railways are called for in full measure.

The Intelligent Public Is Interested

That epic industrial achievement demanded telling as it became apparent that—apart from demagogues and irresponsible radio commentators who didn't care or didn't want to know—there was a host of statesmen, of business leaders in other industries, of shippers and of members of the general public, who really wanted to know what the railways were doing.

It was to fulfill this vital need that the "Freight Progress in War Number" was issued. As the only organization with sufficiently broad but intimate knowledge to paint this gigantic canvas of railway achievement, the responsibility fell directly on the *Railway Age,* and its staff met the challenge to the best of its ability. Its

entire staff of 20 editors, trained in the complex business of railroading in its various highly specialized branches and equipped through years of constant study of railway problems on the ground, was mobilized and sent out to get the story in its many facets, each in the parts of the field he knows intimately. The advertising staff carried the message to such good effect that the Association of American Railroads and more than 50 of the principal railways of the country in some 80 pages of advertising, supplemented the broad industry story with recitals of their individual accomplishments in expanding their services. Similarly, 130 railway supply manufacturers told of their contributions to this great achievement through 165 pages of advertising.

It is gratifying to know from the many letters received and still coming in that we succeeded in bringing the brilliant achievements of the railway industry to the attention of important people throughout the nation.

Shippers, members of Congress, military men, and others in executive capacities who are interested in transportation have taken the time to write commenting on the issue and what the railways are doing in promoting the war effort through the provision of efficient transportation; and their letters demonstrate a confidence in the ability of the railways to handle the traffic offered them, and a continued willingness to co-operate in "Transportation for Victory," that should be highly pleasing to the industry.

From the Military Forces

Copies of the issue were sent to Army, Navy and Marine Corps officers concerned with transportation for the armed forces. Many letters have come from these officers testifying to the type of service the railways are rendering in transporting war freight and troops. What our armed forces think of the railways was well expressed by Brigadier General Gross and Admiral Spear, chiefs of transportation in their respective services, in the issue itself. These favorable impressions were confirmed by the Chief of the Services of Supply, Lieutenant General Brehon Somervell, and by numerous other officers in charge of transportation for the Army. The fact that good railway service is countrywide was attested by the geographical distribution of the headquarters of these officers.

Colonel O. W. Humphries of San Francisco wrote, "It is gratifying that the railroads within the United States have streamlined their service for victory. The editorial information has assisted greatly in explaining and forging together the many agencies which have been developed both by the railroads and by the federal government to solve the transportation problems of the war effort." From the other side of the country, Colonel R. W. Riefkohl of Baltimore wrote that "The issue will serve to make the shippers, the carriers and their employees—and the public—conscious of the great tasks which the railroads are performing in our war effort and to impress all with the effectiveness of the ways and means employed by the carriers in meeting their obligations."

Colonel Louis C. Wilson, stationed at Columbus, Ohio, commented that "'I have had occasion to note the remarkably fine work of the railroads of this country in the big problem of transportation in the present emergency," while from the Inter-Mountain territory, Colonel Rudolph E. Smyser (Fort Douglas, Utah), wrote: "Especially interesting are the articles on equipment and on shipper co-operation in speeding the release of freight cars."

Major I. Sewell Morris, who, as chief of the passenger branch in the office of the chief of transportation, has been in intimate contact with the railways, testified that "the association between the railroads and this office has been most cordial. We fully realize the tremendous task confronting the railroads and are deeply appreciative of the splendid record that they have made in this period of crisis." Captain D. D. White, transportation officer at Chicago, further corroborated the type of service being given: "The railroads of today," he said, "are playing a far greater part in our great and ever growing war effort than was ever before their task. That they are doing it in a most successful manner is being attested daily."

From the Nation's Capital

Officers of the Office of Defense Transportation, who also received copies of the issue, expressed interest and appreciation. Director, Joseph B. Eastman, stated: "I have looked through this issue and have read some of it, particularly the editorial pages, with care. It is a fine piece of work and one of which you have reason to be proud." John W. Barriger, III, associate director, Division of Railway Transport, said: "This is a chronicle of outstanding achievement which is proof positive of the magnificent accomplishment of the American railways." A. T. Wood, director, Great Lakes Carriers division, wrote that "the co-operation between the railroads and the Great Lakes carriers is a very necessary thing and together they are doing a fine job."

Several letters were received from executives of the War Production Board to whom copies were sent to give them a concise comprehensive presentation of the present railway picture. The consensus of these letters was that the issue gave them a broader and more detailed knowledge of what the railways were doing, and that it was informative and valuable as a reference work.

Copies of the issue were also sent to all members of Congress, and many letters received from them give the railways a "vote of confidence." Senator Clyde M. Reed of Kansas said that "the railways are doing a magnificent job." Senator Harry H. Schwartz from Wyoming coined a clever slogan in his commendation of "the over-all patriotic theme: In order to 'Keep 'em Flying' we must also 'Keep 'em Rolling'."

Rep. Nat Patton of Texas wrote: "I am interested in transportation and I find many facts I wish to know in this issue." In a similar vein Rep. Thomas E. Martin of Iowa stated: "I am glad to have the special information regarding railway freight progress in war." Rep. William W. Blackney of Michigan wrote: "I like to get all the information I can pertaining to matters involving national defense, and the railroads are certainly playing their part in that respect." Rep. George W. Gillie of Indiana wrote that "this is a source book of information concerning the practical use of the railroad system in helping win the war." In like language, Rep. Louis C. Rabaut of Michigan said that "although the co-operative spirit of the railroads and shippers is recognized by all in the present emergency, this particular issue is a splendid contribution to a better understanding of the broad scope of the subject." Rep. Martin F. Smith of Wisconsin said: "A most interesting recital of the valuable contribution railroads are making in our national war effort."

Rep. Clinton P. Anderson of New Mexico wrote: "Because of the very essential nature of the transportation industry it has the job of moving men, supplies, raw materials and finished products around the country,

and the railroads are doing that work extremely well. I was attracted not only by the editorial content, but by the advertising. The color pages are extremely effective." In the same vein, Rep. J. Edgar Chenoweth of Colorado stated that "I am greatly impressed with the tremendous task being carried out by the railroads of this country. They are doing a magnificent job and have the admiration and appreciation of all." The importance of the railway problem to the country was stressed by Rep. John M. Houston of Kansas who wrote: "This issue should be read by every American so that there would be a greater appreciation of how the railroads of this country have responded in the war effort. In my opinion, no industry has contributed more and there can be no question that the railroads will continue to do such a superb job as to insure a victorious conclusion of this war at the earliest possible date." Rep. William T. Byrne of New York indicated his long-standing interest in his statement that "I represent the Albany, N. Y., district, am very closely associated with the executives and workers in my locality, and I have a very deep sympathy and understanding of the problems of men in railway service."

What the Shippers Think

As is customary, the Freight Progress in War Number was distributed to approximately 13,000 shippers and receivers of freight. In the articles and in the railway advertising, full credit was given to the shippers for their splendid co-operation. That this recognition was appreciated is apparent from the hundreds of letters received from every section of the country and a wide variety of industries.

Many of the shippers expressed the opinion that the picture of present day rail transportation, as set forth in the Freight Progress in War Number was of such importance as to merit a distribution to executives of industry as well as the general public. Actually, many industrial executives are regular readers of the *Railway Age*, and through news releases of the articles appearing in this issue, a large part of the general public has been made acquainted with the real situation as it pertains to rail transportation today. Among the industrial traffic managers who made this appeal for wider distribution were the following:

Charles E. Vose, traffic manager, Godfrey L. Cabot, Inc., Boston, Mass.—More of the top executives of industry should have the opportunity to get such a broad and definite inside picture of what the railroad machine actually is doing today. The contents of your publication are evidence as to why the railroads are handling the war load today without difficulty.

H. E. Coleman, sales manager, Leroy Lime & Crushed Stone Corporation, LeRoy, N. Y.—We hope that American shippers and the American public appreciate the magnificent contribution that the railways are making to our vital war efforts and that you will continue to portray these splendid achievements as ably as they are presented in this issue.

J. W. Swoger, Knox Glass Associates, Oil City, Pa.—Every traffic manager, as well as the higher executives should take time to read this issue. A lot of traffic managers do not realize the part that transportation is playing in what we hope will be ultimate victory over the Axis powers.

Henry C. Woods, vice-president, Sahara Coal Company, Chicago.—The issue pays proper tribute to what the railroads are doing. We sincerely hope that the general public sees this issue as well.

C. M. Carter, C. M. Carter Grain Company, Forth Worth, Texas.—It is too bad that more of us do not know more in regard to what is being done. This office makes every effort to co-operate in every possible way with the present program. After taking into consideration the prospects of a very large wheat crop, we must all do our part to use cars to the best advantage, releasing them at the earliest possible moment.

Paul C. Stevens, manager, Columbia Valley Lumbermen's Association, Portland, Ore.—I question whether the public as a whole realizes the important contribution the railroads are making in our present emergency. If Mr. John Public could read this issue he would have a better picture of transportation problems.

The high regard in which American shippers and receivers hold the railways is testified to by a number of the traffic managers as follows:

Carlton R. Blades, traffic manager, George E. Keith Company, Boston, Mass.—Anyone who has to do with freight transportation knows that the railroads are doing a wonderful job in handling the greatly increased volume of shipments and your issue helps greatly to show how it is being done.

C. H. Davis, president, Vermont Tap & Die Corporation, Lyndonville, Vt.—We are amazed at the progress made by the railroads of this country.

Arthur S. Guy, general manager, the Barre Granite Association, Barre, Vt.—All of you who are interested in railroading should be justly proud of the record the railroads are making in this emergency. There was a time when I thought the railroads had so many old fossilish ideas that nothing more could be expected of them but a quiet death. The records being established now, therefore, are a pleasant eye-opener to me.

Burton Smart, Portland Gas Light Company, Portland, Me.—I was amazed at the magnitude of what the railroads of this great country of ours are doing, the number and class of the big concerns tied in with this effort and the caliber of the men behind it all.

F. M. Garland, general traffic manager, Pressed Steel Car Company, McKees Rocks, Pa.—This number is interesting to anyone depending each day on the wonderful service given by the American railroads.

Demands Were Unheralded

H. Ignatius, general traffic manager, International Paper Company, New York.—We are in a very epochal period of unheralded demands in the transportation field. The accomplishments of all who have a responsibility to this end have brought to reality what in the past could well have been thought unbelievable.

H. K. Trend, secretary, Bethlehem Chamber of Commerce, Bethlehem, Pa.—Here in Bethlehem, which is the headquarters of such important rail lines as the Lehigh Valley, the Lehigh & New England and the Philadelphia, Bethlehem & New England, we are deeply proud of the splendid way in which the railroads have met the challenge for adequate freight service during this emergency.

W. E. Tissue, White Oak Coal Company, Mount Hope, W. Va.—There are two commodities available in the United States without priorities—coal and transportation. Coal, by reason of splendid transportation, is available in any reasonable quantity on very short notice at any point in the nation. The Chesapeake & Ohio and the Virginian handled approximately 70,000 cars of coal from our mines in 1941 without the slightest delay and delivered them promptly to customers in 18 states.

Charles W. Braden, general traffic manager, National Distillers Products Corporation, New York.—The issue has added to my knowledge of the transportation problems confronting our country and the need for the fullest co-operation between shipper and carrier in their solution. You have extended to the industrial traffic manager a valuable source of needful information for his guidance, as never in the experience of the average industrial man has he had to be abreast of the times as he is required to be today.

Theodore P. Cheshire, president, City Compress & Warehouse Company, Charleston, S. C.—It is astounding to see how much progress the railways have made in improving their material and taking care of the needs of the country in these critical times.

"Borders on the Miraculous"

James J. Hoban, traffic manager, Hunter Packing Company, E. St. Louis, Ill.—I don't think you have gone far enough in praising the railroads for handling the present enormous traffic. To me, it borders on the miraculous.

Carl Giessow, director, traffic bureau, Chamber of Commerce, St. Louis, Mo.—What is now being done in a transportation way would have bordered on the fantastic a few years ago. Transportation is doing its full part in winning the war.

George B. Chandler, executive vice-president, Ohio Chamber of Commerce, Columbus, Ohio.—As one who observed the ill effects of traffic congestion in World War I, I was very much interested to learn what steps the railway industry is taking to avoid a repetition of the old problems.

H. Schermerhorn, traffic manager, Eaton Metal Products Corporation, Omaha, Neb.—The railroads are doing a fine job during the present war. I have obtained a great deal of information from the issue.

A. A. Brown, division traffic manager, Lone Star Cement Corporation, Kansas City, Mo.—The carriers are to be congratulated on their efficient operation of our transportation system, which fact is very forcefully directed to our attention by this issue.

Frank S. Gates, vice-president, Tyler & Simpson Company, Ardmore, Okla.—No one realizes more than I the importance of rail transportation at all times, but in these hectic times railway transportation is the very circulatory system of our entire defense life.

C. R. Burrow, Burrow Lumber Company, Canyon, Texas.—The railways of the nation have done a most outstanding job of handling not only war necessities, but regular freight and passenger traffic as well. We often get a car of lumber before the invoice arrives. We are proud of our railways; so much so that we patronize them 100 per cent.

Atholl McBean, chairman, Gladding, McBean & Company, San Francisco, Calif.—The railroads have handled freight in a most commendable manner during the emergency and the managements of the roads have my congratulations.

Moritz Milburn, executive vice-president, Centennial Flouring Mills Company, Seattle, Wash.—We are aware of the fine job being done by the American railroads during these days when such a huge volume of traffic is moving and are glad to have the opportunity to review these activities.

H. W. Pearcy, traffic manager, Percival Steel & Supply Company, Los Angeles, Calif.—The railroads of this country are ready and able to meet the transportation problems with which we are confronted at this time.

Frederick H. Reid, president, Mountain States Telephone & Telegraph Company, Denver, Colo.—This issue presents most interestingly the problems the railroads face in the war effort and the manner in which they are discharging their responsibilities.

F. J. Olsen, traffic manager, Dunham, Carrigan & Hayden Company, San Francisco.—A word of appreciation is in order for both the railroads and their equipment suppliers for their good work in this war emergency.

Louis Bloch, chairman of the board, Crown Zellerbach Corporation, San Francisco, Calif.—Anyone reading this issue cannot help but be deeply impressed by what has already been done by the normally much maligned railways and should help the public in a proper appreciation of just what has been accomplished.

T. K. Raymond, traffic manager, National Sugar Refining Company, New York.—The information in this issue should counteract a great deal of misinformation, particularly on the general subject of why the government is not operating the railroads.

D. D. Stewart, manager, Organization Service Bureau, Seattle, Wash.—This issue gives me a much more comprehensive understanding of what the railroads are doing in the war today. It certainly substantiates every statement and idea that prevails regarding the advisability of leaving the railroads within the control of the railroad executives and the fallacy of even thinking of governmental operation.

Ralph L. Shepherd, secretary-manager, Seattle Traffic Association, Seattle, Wash.—In language readily understood by the layman, this issue contains valuable information that is of assistance to him in understanding transportation problems, particularly those of the rail carriers, during the present emergency.

C. C. Malsie, traffic manager, Mission Dry Corporation, Los Angeles, Calif.—The statements by such executives as Joseph B. Eastman, Admiral Ray Spear and Brigadier General C. P. Gross, and in general the thoughts conveyed in your publication, offer outstanding contribution to progressive thinking.

A. M. Hays, traffic manager, Henrie & Bolthoff, Denver, Colo.—It is amazing to know what the railroads have done in the past years in respect to efficiency and service.

Shippers Tell How to Improve Service

The daily records of greater and greater efficiency being made by the railways are proof enough that these compliments from the shippers are well merited, but war time is not the occasion for anyone to be complacent and particularly the railways, who must continue to perform even greater feats of efficiency if they are to handle the nation's war transportation. Some of the industrial traffic managers, while admitting the excellence of the railway service, have complaints to make as to certain phases, as follows:

H. M. Waybright, traffic manager, Eastern Gas & Fuel Associates, Boston, Mass.—Why do not all roads follow the example of the Illinois Central and make their freight solicitors into service men? Ninety per cent of the shippers are cooperating, as diminished demurrage collections prove. However, the traffic executives who refuse to go into this whole-heartedly just do not realize the tip Mr. Eastman gave them. Complacency is a very dangerous thing. We should never have reached present performances if people had been satisfied with past records.

David Dunn, general traffic manager, William Wrigley, Jr. Company, Chicago.—We agree that the railroads,

as well as the trucks, are rendering super-transportation today. The operating department is doing a swell job. However, this cannot be said of the rate committees. Very often, regardless of the merit of a proposal, a rate committee must be shown that the business will be lost, before a shipper can get any satisfaction and this forces him to look around for other means of transportation.

Free Passes Criticized

E. J. Davis, general traffic manager, R. G. Le Hourneau, Inc., Peoria, Ill.—Both the articles in this issue and the advertisements show the tremendous strides that have been made in rail transportation. Since World War I, the railroads have done a beautiful job of selling and have built up an immeasurable amount of good will. We are now involved in another war, and the carriers are doing a magnificent job in moving the products of war, but they are losing all of the good will by continually increasing minimums and by suggesting cancellation of certain rates, such as the import and export rate to the West Coast. Also, we hear of the coming necessity for priority on passenger travel, but one can board almost any train and find the relatives of railway men still riding on passes. I am a firm believer in putting one's own house in order before asking for outside help.

A. M. Groseclose, traffic manager, Gwin, White & Prince, Seattle, Wash.—Shippers' co-operation has increased car supply to the extent that no real car shortage has occurred. This effort is being nullified, however, by some railroads in lengthening their through train schedules as much as 24 hr. in across-country haul. What is gained when a shipper or receiver reduces the loaded time of cars 24 hr. and the railroad slows up its train schedules the same amount of time? There are many shippers and receivers who have not delayed cars under load in normal times, so, when the railroads add 24 hr. to the transit move, such shippers and receivers are being penalized and the railroads are contributing to a shortage of cars.

The unusually effective advertising display contained in this issue came in for a big share of comment on the part of a number of shippers, including the following:

A. W. Vogtle, president, National Association of Shippers Advisory Boards; vice-president De Bardeleben Coal Company, Birmingham, Ala.—I am pleased with the recognition given the co-operative efforts of the shippers in the articles and in so many of the railway advertisements. We must first attain all improvements humanly possible in efficient utilization of the rail transportation plant before putting too much heat on the War Production Board to divert critical materials from the direct war efforts for new cars and new locomotives. The Shippers Advisory Boards will continue to co-operate to the limit to that end.

E. C. Carson, district traffic manager, General Electric Company, Philadelphia, Pa.—This issue portrays very graphically the really fine job the rail carriers are doing to keep abreast of the huge demands made upon them. We can more readily understand the railroads' problems and thus, as shippers, have a little more tolerance in presenting our claims for adequate service. The advertising pages contain some of the best publicity I have ever seen.

George F. Hichborn, director of traffic, United States Rubber Company, New York.—The advertising in this publication is most enlightening and another reason why the person fortunate enough to have this issue should keep it on file for ready reference.

D. H. Morton, president, Ames Mining Company, Charleston, W. Va.—I am unable to decide which is the most interesting—the subject matter or the advertising.

C. Schlauch, general traffic manager, American Bosch Corporation, Springfield, Mass.—In addition to the editorial material, the advertising pages contain a vast amount of informative matter.

P. E. Anderson, traffic manager, Zenith Radio Corporation, Chicago.—This company is now in 100 per cent war production itself. We, therefore, take a keen interest in learning what various advertisers are doing during this critical period.

Roy L. Goebel, traffic manager, the Cooper Company, Waco, Texas.—This is about the only magazine I have ever received that I enjoyed from cover to cover, including the advertising.

Shipper Co-Operation

The traffic managers who mentioned the importance of shipper co-operation with the railways were numerous, and the following examples are typical:

A. P. Keeler, traffic manager, Fuller Brush Company, Hartford, Conn.—The forecasts of greatly increased traffic in the fall and next year almost frightened me, and we are taking what steps we can to move the bulk of our tonnage just as quickly as possible, so as to relieve the expected congestion in the fall.

C. W. Stephens, American Viscose Corporation, Parkersburg, W. Va.—The issue has brought home the things we must do to co-operate with the railroads in order to make their efforts a success.

H. L. Gray, president, Sewanee Coal & Supply Company, Chattanooga, Tenn.—Anyone who reads this issue will endeavor to speed up the loading and unloading of cars and to co-operate 100 per cent with the railroads and the government.

C. F. Bauserman, traffic manager, P. H. Hanes Knitting Company, Winston-Salem, N. C.—We formerly loaded about 100 cars per month in switching service between two separate plants for an average of two car days per car. By heavier loading, we have reduced the number of cars required by more than 25 per cent and by quicker unloading we have reduced the car days per car to less than 1½. We are happy to have a part in the wonderful work the railways are performing in the war effort.

T. C. Burwell, vice-president, A. E. Staley Manufacturing Company, Decatur, Ill.—Such an epic issue has far reaching effects and should contribute greatly toward the objectives for which the shippers and the railways are striving.

D. H. McMaster, vice-president Bell & Zoller Coal Company, Chicago.—The way in which the American railroads are accomplishing their task is commendable and deserves such publicity. Above all, the co-operation between the shippers and the railroads is not to be overlooked, and emphasis was well placed on this point.

Douglas Orme, traffic manager, Casden Petroleum Corporation, Big Spring, Texas.—The railroads have rendered excellent service in handling our tank cars, both loaded and empty.

Ormond R. Bean, commissioner public utilities, State of Oregon, Salem, Ore.—I am amazed at the panorama of transportation development you have shown. The issue indicates the great difference between the transportation setup today and that in the last war and shows what private enterprise, plus co-operation of the shippers, can do in an emergency. If I had not seen the results, I would not believe that so many more ton-miles could be moved in the present emergency than in the previous war, with less equipment.

Conserving Strategic Metals In Car Journal Bearings

A. A. R. research program shows advantages of broached linings and depressed backs—Modified design of reduced weight evolved

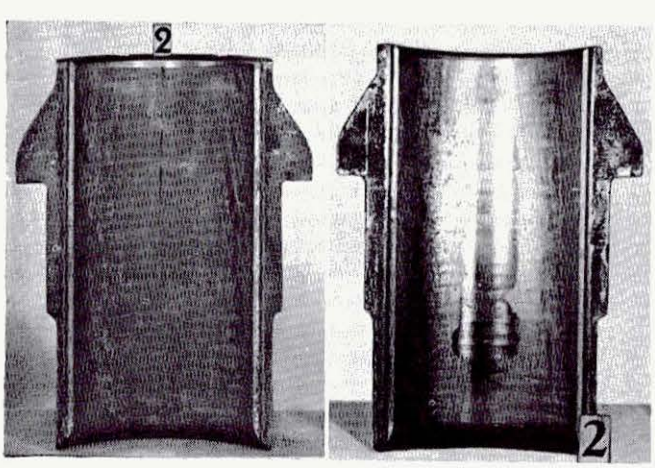
EARLY in January of this year, the Association of American Railroads, Mechanical Division, began a comprehensive study of the possibility of reducing strategic metals used in car journal bearings. This research is being conducted in the laboratory of the Railway Service & Supply Corp., Indianapolis, Ind., and has three primary objectives, namely, to secure increased service from present bearings, to minimize the amount of strategic metals required in journal bearings, and to investigate the possibility of replacing copper-bearing alloys by some form of ferrous back.

To date, three primary bulletins or progress reports have been issued, the first of which relates to an important detail of wedge construction. The second recommends broached linings for all bearings and suggests an A. A. R. modified, "depressed back" design for all orders of new journal bearings. The third bulletin shows the advantages of reduced lining thickness and recommends further slight changes in the modified journal-bearing design which will facilitate manufacture and save a still larger percentage of the strategic metals used in these bearings. The performance of various types of ferrous-back bearings is still being studied.

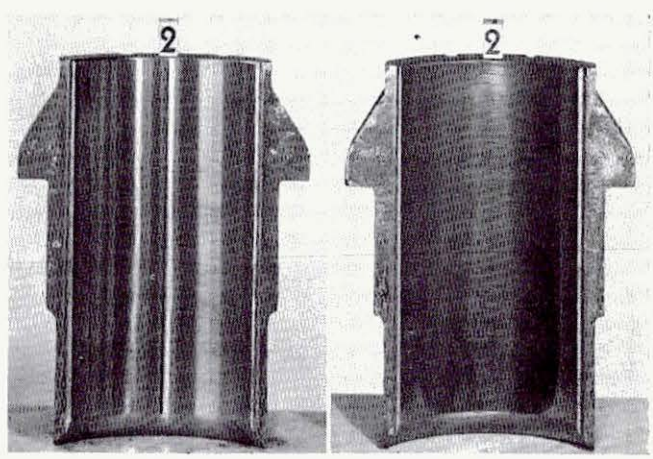
Personnel of the Research Committee

The Committee on Journal Bearing Development, appointed to represent the A. A. R., Mechanical Division, in this special research, includes Chairman W. I. Cantley, mechanical engineer, A. A. R. Mechanical Division; J. R. Jackson, engineer of tests, Missouri Pacific; L. B. Jones, engineer of tests, Pennsylvania; C. B. Bryant, engineer of tests, Southern; J. W. Hergenhan, assistant engineer, test department, New York Central; and J. Mattise, general air brake instructor, C. & N. W.

Tests are conducted under the direction of the A. A. R. research committee in the laboratory of the Railway Service & Supply Corp. E. S. Pearce, president of this company and owner of a patent on the modified light-weight journal bearing design, has arranged to grant railroads, carbuilders and bearing manufacturers non-exclusive licenses to make and use the modified journal bearing on railway equipment during the present national emergency, in consideration of nominal payments of one dollar a year. Another requirement is the furnishing of monthly reports to show the number of bearings manufactured or used and sold under this license, also indicating in so far as practicable whether the applications are to freight cars, passenger cars, maintenance of way cars, or locomotive tenders.



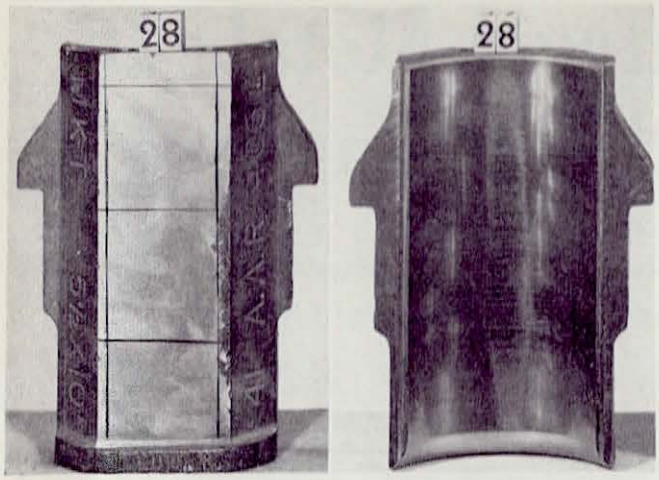
A.A.R. Modified Journal Bearing with "As-Cast" Lining—Left, Fair Surface and Partial Crown Contact before Test—Right, Irregular Contact Area of 10.30 Sq. In. after Test



Same A.A.R. Modified Bearing with Machine-Broached Lining—Left, Accurate Full-Line Crown Contact before Test—Right, Two-Point Loading and 8.73 Sq. In. of Bearing Area after Test

In the first bulletin, issued on January 19, the research committee called attention to undesirable journal-bearing and wedge conditions, as shown in one of the illustrations, which tend to cause collar breakage and attendant waste of journal bearing metal. With a wedge of standard length and having straight, square ends, an accurate fit is secured on the journal-bearing collar with attendant development of shear stress only which the collar is designed to resist safely. With a taper-end wedge, or one having a ridge which brings the contact point at the top of the journal-bearing collar, the collar is subject to bending stress which is excessive in amount and tends to crack or break off the collar. The Mechanical Division, general committee, approved the recommendation of the research committee that corrective measures be taken to assure a proper fit at this important bearing surface between the wedge end and the journal-bearing collar on all equipment now in service.

In determining the economic and operating value of

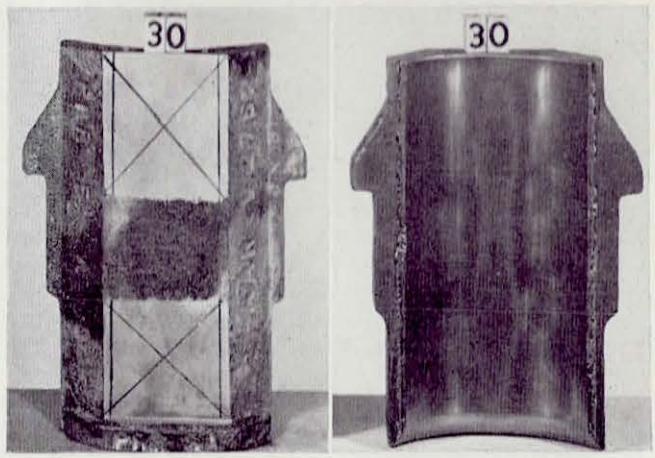


A.A.R. Journal Bearing with Plain Back—Left, Back Machined Flat—Right, Typical Center Loading with 8.08 Sq. In. of Bearing Area after Test

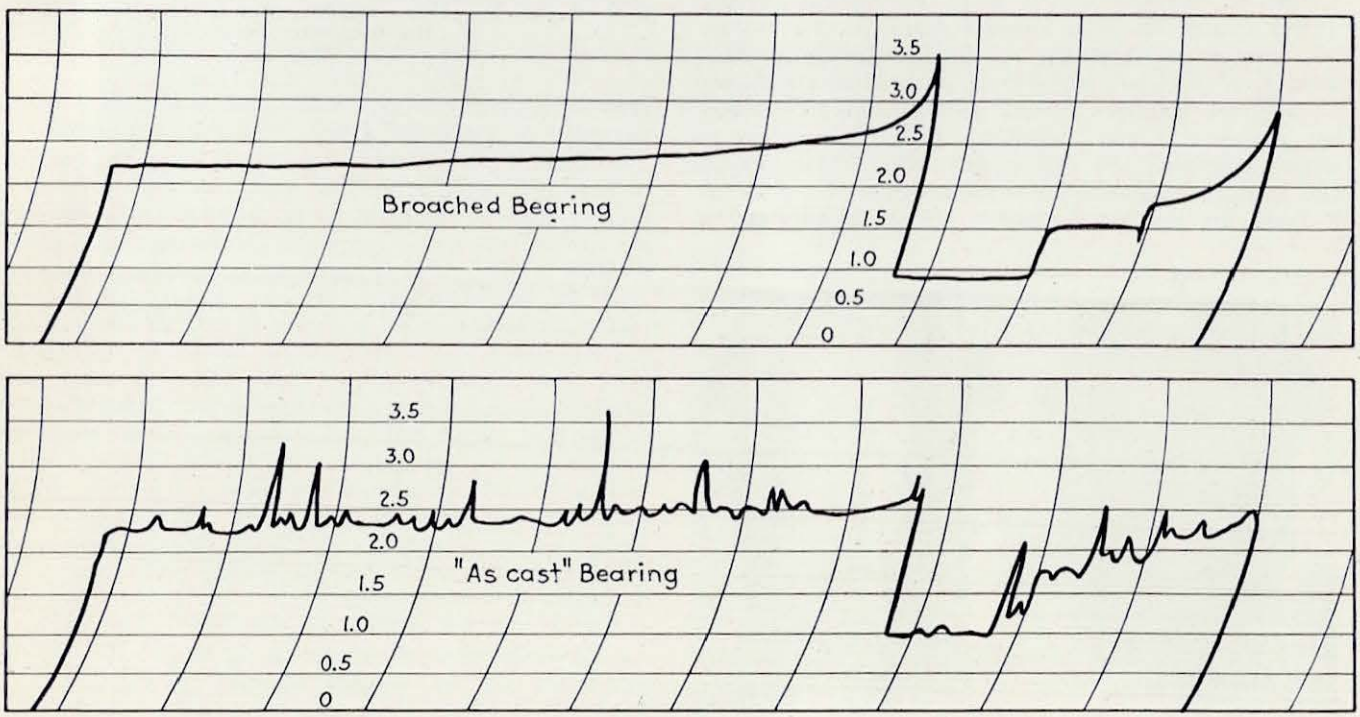
properly machine-broached journal bearings, as compared with as-cast linings, and to determine the merit of A. A. R. modified depressed-back bearings, as compared with former standard A. A. R. plain-back bearings, Series A tests were conducted, embracing 60 runs. Journal bearings used during the tests were supplied by the National Bearing Metals Corporation, St. Louis, Mo., the Magnus Metal Corporation, Chicago, and by the Pennsylvania. All of these bearings were babbitt lined except six, supplied by Magnus, which were lined with Satco metal. The operating test schedule called for a continuous run for 170 min. under 16,375 lb. total load, including 30 min. at 30 m. p. h., 20 min. at 20 m. p. h. and 120 min. at 50 m. p. h. In all test runs of this series, 8 lb. of packing and 3.25 lb. of renovated car oil were used for each pound of new-cotton waste.

The test machine consisted of a standard 5½-in. by 10-in. axle journal, supported by two calibrated roller bearings and connected by a flexible coupling to a 100-amp. 230-volt d. c. calibrated motor, capable of driving the journal at any constant speed from 0 to 100 m. p. h. The load, applied by a large handwheel through reduction spur gears and a spring-supported connection to the end of the lever arm, was measured and kept constant at the desired point by means of a Fairbanks scale.

As a result of this series of tests, the Committee on Journal Bearing Development reported substantially the same laboratory performance at various speeds under full rated rail load for both the modified and the standard journal bearings. They found that journal bearings having linings properly machine broached, other things remaining the same, give outstandingly better performance than the same bearings having "as cast unbroached linings. This is borne out by the much smoother power curve for broached bearings, shown in one of the charts. The committee also found that journal bearings with



A.A.R. Modified Journal Bearing with Depressed Back—Left, Two Pads Machined Flat—Right, Typical Two-Point Loading with 7.87 Sq. In. of Bearing Area after Test



Smooth Power Curve for Broached Bearing (Top) and Relatively Rough Curve for As-Cast Bearing (Bottom)—Major Disturbances in the Latter Indicate Momentary Metal-to-Metal Contacts with Possible Lubrication Failure and Resultant Overheated Bearing

depressed backs under the same conditions give improved overall performance in relation to the journal and the wedge, as compared with the same bearings having plain non-depressed backs. The definitely higher operating temperatures of plain-back bearing at various speeds are shown in a second chart.

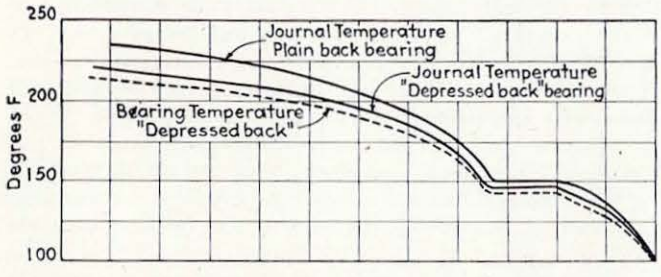
Based on the salient facts established through the Series A tests, the committee made two specific recommendations, designed to conserve strategic metals by further direct reductions in weight per bearing and at the same time affect an indirect conservation by reducing operating delays from overheating due to newly-applied bearings: (1) That the practice of applying car journal bearings with as-cast linings be discontinued and all new railway car journal bearings have linings machine-broached to a proper bearing surface with the minimum thickness allowable under modified design, then known as the D-23 1-15-42; (2) that the depressed-back detail, shown as an alternate design of the modified bearing, shall be specified on orders for all new bearings purchased to the modified design during the present emergency.

Reduced Thickness of Bearing Back and Lining

In the third bulletin, issued May 15, 1942, the Committee on Journal Bearing Development recommended and the General committee approved another emergency bearing D-23 5-29-42 with reduced weight over the previous modified bearing by decreasing the thickness of the back and the lining wall within the limits established as possible through the laboratory tests and practical to manufacture with the present machine tool and fixture equipment available for making railway car journal bearings. No pattern changes were found necessary to change over to the emergency from the modified bearing design earlier proposed.

The object of the investigation reported in the third bulletin was to explore the possibilities of a further curtailment of strategic material by decreasing the thickness of the back and the lining. A total of 32 Series B test runs were made with three different size bearings, namely, (a) bearings tested on a nominal 5½-in. diameter journal; (b) bearings tested on the same journal turned down to 5 in. in diameter; and (c) special tests of a shortened bearing on the 5½-in. nominal diameter journal.

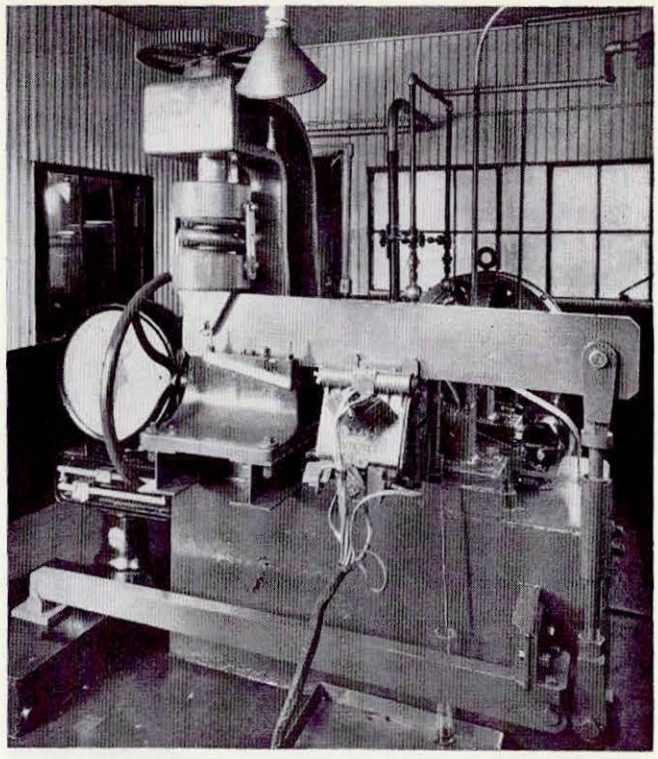
All test bearings were 5½ in. by 10 in., with A. A. R. bronze backs and babbitt linings, made by the National Bearing Metals Corporation. The shortened bearing



Curves Showing Higher Operating Temperatures of Journal with Plain-Back Bearing as Compared with One Having a Depressed-Back Bearing—Temperature of the Bearing Itself also Is Proportionately Reduced

was reduced ¾ in. in length at the lug end and used for the purpose of a special test.

The Series B test procedure called for a continuous run for eight hours under 16,375 lb. total load at 40 m. p. h.



The Journal-Bearing Test Machine Showing Method of Applying the Load by Spur Gear and Shaft Connection from a Large Handwheel in the Rear

and a similar run at 80 m. p. h., or 16 hours total run with an over-night cooling-down period between each 8-hr. test. The same proportions of packing, renovated car oil and new dry-cotton waste were used in the Series B as in the Series A tests.

The test machine was the same as that previously described. The temperatures of the journal and the bearing were measured at 90-sec. intervals and recorded on temperature charts. Changes in position of the bearing in the horizontal plane and of the assembly (bearing plus axle) in the vertical plane, due to load and heat generated, were measured by means of special deflection gages.

Conclusions Reached

As the result of the Series B tests, the general conclusions were drawn regarding both A. A. R. standard and modified journal bearings having bronze backs and babbitt linings that reducing the lining thickness is beneficial to lowering the running temperature; and that reducing the thickness of the back to the minimum for relined bearings results in no appreciable decrease in load-carrying capacity or increase in running temperature.

Based on these conclusions, the committee made the following recommendations: (1) that the design of the A. A. R. modified bearing be changed to reduce the weight of both the backs and the linings through the dimensional and tolerance changes shown in drawing D-23 5-29-42A which has been included in the Mechanical Division Manual of Standard and Recommended Practice; and that (2) in the interest of the national emergency and the necessity for the conservation of strategic metals in car journal bearings the changes incorporated in the proposed design modifications should be put into effect at once.

What to Tell Employees, and How

Whether the Man on the Job Knows the Policies That Enable the Industry That Supports Him to Function, May Largely Determine His Own and His Country's Future

An authority on industrial relations believes present time propitious to arouse employees' understanding of system which gives them freedom and world's highest living standard — Suggests practical methods for task

AN officer of a railroad which was badly "nicked" in an extraordinarily preposterous adjustment board referee claim said to this reporter: "It is the fellows we took on during the last war who have caused most of our trouble. We hired whoever came along—and we didn't have or take time to train them. Their introduction to railroading was the 'back-pay' period and the political unionism fostered under Mr. McAdoo. It is no wonder that they turned out the way they did."

The education of employees in an effective approach and a healthy attitude to their work would appear to be a managerial responsibility of pressing importance at a time when once again new men are being taken on at an unprecedented rate. It is desirable beyond question that employees understand enough of the circumstances of their jobs (their importance to the war program, for instance) to induce them to work as effectively as they can. But getting facts to employees to enable them to comprehend where their true interest lies is more than just a war-time managerial task. Depending on whether this job is done well or not, probably, hangs the economic and political future of the country. It cannot be said, thus far, that labor union policy, generally speaking, has been calculated to assure a continuance of efficient, large-scale private enterprise.

That is to say: Large-scale enterprise cannot continue to exist in private ownership if it is forced to pay wages so high, or submit to working conditions so onerous, that its resulting prices drive customers away (and thus destroy jobs). Large-scale industry cannot be taken away from private owners and operated, successfully, by the state unless the state deprives the employees of the power to enforce the practices which caused the undertaking to fail in private hands.

In other words: Either employees must know how to co-operate, and act upon their knowledge, to permit large-scale private industry to function effectively or (1) large-scale industry will become a thing of the past (along with the high standard of living which mass production provides), or (2) large-scale industry will fail in private hands and be taken over by the state which will use *coercion* to make it continue functioning. Under alternative (1), industrial employees would lose their high standard of living. Under alternative (2) they would lose their political freedom. They might very well lose both. And when they lose those advantages everybody else will lose them, too.

Few managers of industry doubt the desirability of getting the facts about their industry to employees—as is demonstrated by the persistent, but usually not very successful, efforts they put forth with this end in view. Now, however, a book* has appeared which should—for those who will profit from the persuasive analysis which it presents—put an end to ineffective attempts in this direction. The author is manager of industrial relations for the Crown Zellerbach Corporation and is a consulting professor at Stanford University. His book is thus the work of a practical man who thinks, and a thinker who has to test his thoughts in practice—a combination which hardly ever fails to produce results.

Getting at What the Job Consists of

To arrive at the principles which must govern imparting information to employees, Mr. Heron goes back to the small factory of, say, 75 years ago—when there

* "Sharing Information with Employees" by Alexander R. Heron. Published by Stanford University Press, California.

was no conflict between "capital" and "labor"; when they knew they were partners, and mutually dependent. What is the difference between large-scale industry today and the small shop of bygone times—and how can the latter's advantages be retained for an era of mass production? By keeping this small factory in mind, and *what its employees knew about it* that made them willing co-operators, the author gets at the type of information which large-scale industry must strive to impart—if it also is to have employees who are co-operative. He imagines a small furniture shop of a bygone day and describes it as follows:

"Perhaps eight men work there. One of them is the boss. He owns the shop, but he works there, visibly. The other seven receive wages. The work done by the boss is not all done with tools; sometimes he uses a pencil. He draws designs, writes occasional letters, puts down figures about wages, costs, and prices. The other seven know quite closely, how much money the boss had saved up from his earnings as a journeyman before he started in business for himself; in other words, how much 'capital' he had and how long it took him to save it up.

"The shop or factory is on the same lot as the house where the boss lives; he owns it. The other seven know how much his taxes are each year. They helped to build the ten-by-thirty addition to the shop last year, and they know how much that cost. They were all in on the discussion before the new lathe was bought, and they remember the price and the freight. They remember how the boss borrowed some of the money from his wife's sister.

"They know that the dining-room 'suit' on which they are working now is for Jane Winton, that used to be Jane Carey, the schoolteacher, before she married Bill Winton, the banker. They know it has to be as good as the furniture she saw in Buffalo, and that if it is good Bill's mother is going to give the boss an order for another lot which will keep them all busy through the winter.

"They see the finished job emerging under their skilled hands, day by day. They know how difficult it was to get the seasoned walnut, and what it finally cost, what price is to be paid for the finished job, how much the boss will 'make' on it, and how much of that will go to pay off the loan from the sister-in-law.

"They know that the boss has gradually built a reputation for honest quality and skilled workmanship and that they are part of that reputation. They know why once in a while they have had to wait for a little for their wages—when the taxes had to be paid before the money came in for the new counter and fixtures at the drugstore.

"Above all, they know the boss. Their attachment to him is basically not sentimental but practical. He is the salesman who gets the orders which bring work to them. He collects the money which pays their wages. He manages to accumulate the working space and the equipment. They are realistic enough to know that they can get their full and fair share of the income of the business. They laugh at anyone who talks of the conflict between labor and capital, between them and the boss."

Now, the job is to give the employee of the large industry the same kind of information about it that the employee of the small shop had about his business. That is a large order. There is too much complexity about the big business for it all to be known. So the manager picks out the facts that *he* wants the employee to know—and the employee usually isn't interested.

What Does Employee Want to Know?

The author argues persuasively that this paternalistic, selective, predigested approach won't work. The employee will not harken to facts hand-picked for him by somebody with, perhaps, an ulterior purpose. He will not accept ready-made opinions. The first thing he wants is somebody to answer his own questions. Most big industries have already learned that principle in their dealing with newspapers.

It is not, however, some super-publicity office or question-answering bureau which the author proposes as a method of educating employees in the meaning of their jobs. Instead, he is insistent that the employee's own supervisor is the man to answer his questions. If the supervisor doesn't know the answers, then some special training and information will be needed for the supervisors—but they are the key men, and they cannot be run-around.

The book lists the principal classes of information which the employee either may want or ought to have (viz., company finances, profits, the significance of each class of work in the total product, the source of raw materials and nature of the market for the company's products, data on which to form political judgments) and the dangers to be avoided in seeking to present educational material in each category. For example, on politics the advice is never to convey ready-made opinions as to what candidate or policy to support. The employer should go no further than to give the employee such facts as will enable him "to comprehend the underlying factors which affect his employment, earnings, and security, and which will enable him to see his stake in the free enterprise system." And the time to start imparting such information is *not* during the heat of an election campaign.

Pros and Cons of Specific Devices

The outstanding success of the safety movement in industry—derived basically from free discussion about a matter of common interest by a group of 8 or 10 men—indicates that such a group is an ideal educational arrangement. A program of employee information, the author advises, should not be started formally and on a large scale, but casually and naturally, and using the facilities already available, *including union-management conferences*. If some new medium is used, it should not be one which directs attention to itself rather than to the information. The process must begin at the top between chief executives and their subordinates—and should follow on down through channels "natural to the particular establishment."

A number of specific devices are discussed, with the advantages and disadvantages — and dangers to be avoided—of each. Some of these (with just a suggestion of the type of practical advice which the book gives in considerable detail about each) may be listed as follows:

The Bulletin Board.—Restrict the messages to subjects the employee is really interested in. Make them brief and newsy.

The Pay Insert.—The type of insert, telling the employee some general facts about the business, does not belong in the pay envelope. An announcement of a pay increase might properly be enclosed. It is difficult to find subjects for inserts which are applicable to all employees.

The Annual Report.—Probably the same report should be sent to both stockholders and employees. Better let it be known that the report is available for those who want it than to give it wholesale to those who do not.

The Employee Magazine.—There are several types of these, each having its advantages and its dangers. The test of success is the number of intelligent questions about the business which the magazine engenders. Indeed, that is the test to be applied to all informational devices.

The Employees' Handbook.—Successor to the book of rules and much more complete and helpful. Preparation and criticism of such a book offers an excellent opportunity to enlist the co-operation of supervisors

(which is absolutely essential to the success of this effort). It also affords an occasion for securing union participation.

Direct Mail.—If done wisely and modestly—and the message is individualized—this may be a most effective expedient, for certain classes of information (such as the company's work in the war, for example). Its one great advantage is that it reaches the man's family.

Civic Group Meetings.—Appearances of properly-prepared supervisory officers before such organizations come more under the heading of public, rather than of employee, relations. At the same time, statements made at such meetings reach employees, and may cause them to ask questions—which is most desirable, provided the company is prepared to answer them.

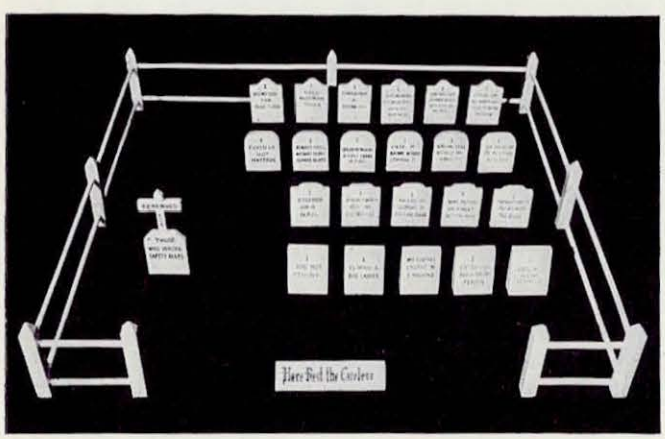
The "Grapevine".—Usually a builder of ill-will. But the grapevine won't carry stories that couldn't possibly happen. If the managerial set-up is right from top to bottom, the grapevine won't carry destructive matter.

The time to start telling employees about their business is not during a depression when it is in a bad fix, so what the management has to say is apologetic and plaintive. Rather, the time to start is when business is brisk, such as at present—and there are constructive and hopeful things to talk about. As the author says: "In contrast to a period of depression, there are features of public attitude which make this year of 1942 an almost perfect occasion for entering upon, or expanding, a program of sharing information with employees. The range of subject matter on which the mind of each of us is ready to 'tune in' has been greatly increased. The defense program has widened the mental interests of tens of millions of us."

"The employee will 'tune in' today. If he acquires the information, there is hope of creating the understanding which will save the American enterprise system in the days of confusion and reaction which will surely follow."

There is no other book known to your reviewer which is quite like this one. If a few dozen railroad people would read it and put its teachings into active practice, it seems likely that some very interesting changes might before long begin to occur in this industry. All of them good.

* * *



The Reading Puts Unsafe Practices in a Graveyard

A safety exhibit at a recent Reading Boosters' meeting portrayed a miniature cemetery in which the tombstones bore such epitaphs as:
"I climbed a bad ladder."
"I did not use the blue flags."
"I jumped from a moving car."
"My clothes caught in a machine."

Training Railroad

(*Continued from page 167*)

equipped with side bay windows instead of the conventional top cupolas.

All car repairs will be handled by the battalion forces, as will all running repairs to its locomotives. For Class 1, 2 and 3 repairs, the locomotive parts or the complete locomotives will be turned over to one or the other of the railway equipment maintenance battalions being organized throughout the country. The railway has no manual or automatic block signals, and is being operated entirely by train order, employing a push-button type automatic selector telephone system with stations at both terminals and at intermediate points along the line.

The operation and maintenance of the railway is being handled entirely by the 711th Battalion, organized on a military-divisional basis—a military basis in that the battalion is broken up into a group of general officers and four companies, each man in each company having an appropriate military rating and duties, and a divisional basis in that, from a railway standpoint, the organization is similar to that in effect on the individual operating divisions of many Class I ralroads. The four companies of the battalion include a Headquarters and Service Company, Company A, Company B and Company C. The Headquarters and Service Company handles many of the general service operations of the railroad organization, and includes among its personnel dispatchers, operators, signal men, linemen, the clerical staff and the supply department forces. Company A handles maintenance of way and structures; Company B handles the maintenance of equipment; and Company C is the operating department.

The general officers of the battalion include the commanding officer, a lieutenant-colonel, who is superintendent of the line; an executive officer, a major, who acts as assistant superintendent; a captain storekeeper; a captain trainmaster; a first lieutenant chief dispatcher; a captain master mechanic; two first lieutenant road foremen of engines; a captain engineer maintenance of way; a first lieutenant roadmaster; a first lieutenant signal supervisor; a first lieutenant bridge and building supervisor; a first lieutenant mechanical engineer; a first lieutenant car foreman; a first lieutenant enginehouse foreman; a second lieutenant assistant master mechanic; a second lieutenant assistant engineer maintenance of way; a first lieutenant yardmaster; and a second lieutenant assistant yardmaster. Down the ranks of the various companies, the men hold ratings from privates up through various grades of Technicians and Sergeants. For example, firemen are Technicians, Grade 5; engineers are Technicians, Grade 4; and Conductors have the rating of Sergeants. Likewise, assistant track and bridge and building foremen hold the rank of Corporal, while full foremen are either Sergeants or Staff Sergeants.

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was no conflict between "capital" and "labor"; when they knew they were partners, and mutually dependent. What is the difference between large-scale industry today and the small shop of bygone times—and how can the latter's advantages be retained for an era of mass production? By keeping this small factory in mind, and *what its employees knew about it* that made them willing co-operators, the author gets at the type of information which large-scale industry must strive to impart—if it also is to have employees who are co-operative. He imagines a small furniture shop of a bygone day and describes it as follows:

"Perhaps eight men work there. One of them is the boss. He owns the shop, but he works there, visibly. The other seven receive wages. The work done by the boss is not all done with tools; sometimes he uses a pencil. He draws designs, writes occasional letters, puts down figures about wages, costs, and prices. The other seven know quite closely, how much money the boss had saved up from his earnings as a journeyman before he started in business for himself; in other words, how much 'capital' he had and how long it took him to save it up.

"The shop or factory is on the same lot as the house where the boss lives; he owns it. The other seven know how much his taxes are each year. They helped to build the ten-by-thirty addition to the shop last year, and they know how much that cost. They were all in on the discussion before the new lathe was bought, and they remember the price and the freight. They remember how the boss borrowed some of the money from his wife's sister.

"They know that the dining-room 'suit' on which they are working now is for Jane Winton, that used to be Jane Carey, the schoolteacher, before she married Bill Winton, the banker. They know it has to be as good as the furniture she saw in Buffalo, and that if it is good Bill's mother is going to give the boss an order for another lot which will keep them all busy through the winter.

"They see the finished job emerging under their skilled hands, day by day. They know how difficult it was to get the seasoned walnut, and what it finally cost, what price is to be paid for the finished job, how much the boss will 'make' on it, and how much of that will go to pay off the loan from the sister-in-law.

"They know that the boss has gradually built a reputation for honest quality and skilled workmanship and that they are part of that reputation. They know why once in a while they have had to wait for a little for their wages—when the taxes had to be paid before the money came in for the new counter and fixtures at the drugstore.

"Above all, they know the boss. Their attachment to him is basically not sentimental but practical. He is the salesman who gets the orders which bring work to them. He collects the money which pays their wages. He manages to accumulate the working space and the equipment. They are realistic enough to know that they can get their full and fair share of the income of the business. They laugh at anyone who talks of the conflict between labor and capital, between them and the boss."

Now, the job is to give the employee of the large industry the same kind of information about it that the employee of the small shop had about his business. That is a large order. There is too much complexity about the big business for it all to be known. So the manager picks out the facts that *he* wants the employee to know—and the employee usually isn't interested.

What Does Employee Want to Know?

The author argues persuasively that this paternalistic, selective, predigested approach won't work. The employee will not harken to facts hand-picked for him by somebody with, perhaps, an ulterior purpose. He will not accept ready-made opinions. The first thing he wants is somebody to answer his own questions. Most big industries have already learned that principle in their dealing with newspapers.

It is not, however, some super-publicity office or question-answering bureau which the author proposes as a method of educating employees in the meaning of their jobs. Instead, he is insistent that the employee's own supervisor is the man to answer his questions. If the supervisor doesn't know the answers, then some special training and information will be needed for the supervisors—but they are the key men, and they cannot be run-around.

The book lists the principal classes of information which the employee either may want or ought to have (viz., company finances, profits, the significance of each class of work in the total product, the source of raw materials and nature of the market for the company's products, data on which to form political judgments) and the dangers to be avoided in seeking to present educational material in each category. For example, on politics the advice is never to convey ready-made opinions as to what candidate or policy to support. The employer should go no further than to give the employee such facts as will enable him "to comprehend the underlying factors which affect his employment, earnings, and security, and which will enable him to see his stake in the free enterprise system." And the time to start imparting such information is *not* during the heat of an election campaign.

Pros and Cons of Specific Devices

The outstanding success of the safety movement in industry—derived basically from free discussion about a matter of common interest by a group of 8 or 10 men—indicates that such a group is an ideal educational arrangement. A program of employee information, the author advises, should not be started formally and on a large scale, but casually and naturally, and using the facilities already available, *including union-management conferences.* If some new medium is used, it should not be one which directs attention to itself rather than to the information. The process must begin at the top between chief executives and their subordinates—and should follow on down through channels "natural to the particular establishment."

A number of specific devices are discussed, with the advantages and disadvantages — and dangers to be avoided—of each. Some of these (with just a suggestion of the type of practical advice which the book gives in considerable detail about each) may be listed as follows:

The Bulletin Board.—Restrict the messages to subjects the employee is really interested in. Make them brief and newsy.

The Pay Insert.—The type of insert, telling the employee some general facts about the business, does not belong in the pay envelope. An announcement of a pay increase might properly be enclosed. It is difficult to find subjects for inserts which are applicable to all employees.

The Annual Report.—Probably the same report should be sent to both stockholders and employees. Better let it be known that the report is available for those who want it than to give it wholesale to those who do not.

The Employee Magazine.—There are several types of these, each having its advantages and its dangers. The test of success is the number of intelligent questions about the business which the magazine engenders. Indeed, that is the test to be applied to all informational devices.

The Employees' Handbook.—Successor to the book of rules and much more complete and helpful. Preparation and criticism of such a book offers an excellent opportunity to enlist the co-operation of supervisors

(which is absolutely essential to the success of this effort). It also affords an occasion for securing union participation.

Direct Mail.—If done wisely and modestly—and the message is individualized—this may be a most effective expedient, for certain classes of information (such as the company's work in the war, for example). Its one great advantage is that it reaches the man's family.

Civic Group Meetings.—Appearances of properly-prepared supervisory officers before such organizations come more under the heading of public, rather than of employee, relations. At the same time, statements made at such meetings reach employees, and may cause them to ask questions—which is most desirable, provided the company is prepared to answer them.

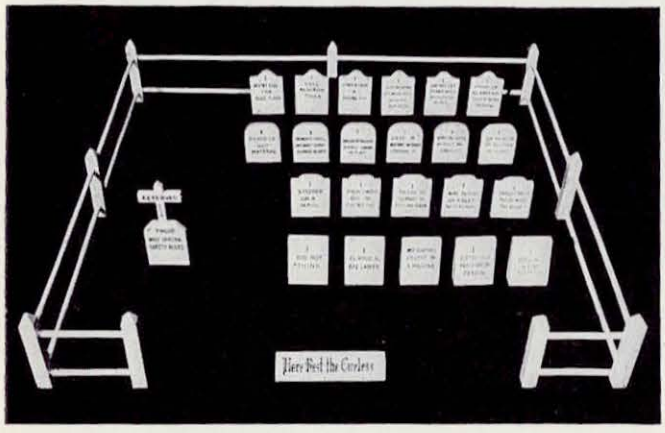
The "Grapevine".—Usually a builder of ill-will. But the grapevine won't carry stories that couldn't possibly happen. If the managerial set-up is right from top to bottom, the grapevine won't carry destructive matter.

The time to start telling employees about their business is not during a depression when it is in a bad fix, so what the management has to say is apologetic and plaintive. Rather, the time to start is when business is brisk, such as at present—and there are constructive and hopeful things to talk about. As the author says: "In contrast to a period of depression, there are features of public attitude which make this year of 1942 an almost perfect occasion for entering upon, or expanding, a program of sharing information with employees. The range of subject matter on which the mind of each of us is ready to 'tune in' has been greatly increased. The defense program has widened the mental interests of tens of millions of us."

"The employee will 'tune in' today. If he acquires the information, there is hope of creating the understanding which will save the American enterprise system in the days of confusion and reaction which will surely follow."

There is no other book known to your reviewer which is quite like this one. If a few dozen railroad people would read it and put its teachings into active practice, it seems likely that some very interesting changes might before long begin to occur in this industry. All of them good.

* * *



The Reading Puts Unsafe Practices in a Graveyard

A safety exhibit at a recent Reading Boosters' meeting portrayed a miniature cemetery in which the tombstones bore such epitaphs as:
"I climbed a bad ladder."
"I did not use the blue flags."
"I jumped from a moving car."
"My clothes caught in a machine."

Training Railroad

(*Continued from page 167*)

equipped with side bay windows instead of the conventional top cupolas.

All car repairs will be handled by the battalion forces, as will all running repairs to its locomotives. For Class 1, 2 and 3 repairs, the locomotive parts or the complete locomotives will be turned over to one or the other of the railway equipment maintenance battalions being organized throughout the country. The railway has no manual or automatic block signals, and is being operated entirely by train order, employing a push-button type automatic selector telephone system with stations at both terminals and at intermediate points along the line.

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I. C. C. Submits New Plan for D. & R. G. W.

Washington, D. C.

THE Interstate Commerce Commission has approved further modifications of its plan of reorganization for the Denver & Rio Grande Western. In its present report the commission provides for alternative plans, one based on the consolidation of all the affiliated companies, including the Denver & Salt Lake, and one without any such consolidations. On the basis of the consolidation the capitalization of the company would be reduced from $243,659,679 to $154,521,612; while under the terms of the alternative plan the capitalization would be pared down to $141,876,512. Under the terms of both plans the equities of both the common and preferred stockholders would be wiped out.

Capitalization of New Company

Under the further modified plan, effective January 1, 1942, the capitalization of the new company, on the basis of a consolidation of all the affiliated companies, including the Denver & Salt Lake, would be as follows:

Equipment obligations, undisturbed	$9,139,605
Chase Nat. Bank note, extended	2,068,458
R. R. Credit Corp. note, extended if not paid	265,194
Loan for new money, approximately	2,250,000
New first mortgage bonds	36,120,366
New income bonds	21,916,632
D. & Salt Lake first mtge. bonds	1,500,000
D. & Salt Lake income bonds, modified	9,734,000
Total debt	82,994,255
New preferred stock, par value $100	31,099,262
New common stock, par value $100	40,428,095
Total	154,521,612

The annual charges under the capital structure approved would be substantially as follows:

	Fixed Interest	Prior Contingent Interest	Contingent Interest	Dividend
Equipment obligations	$193,832	.....	.....	.....
Chase Bank note	44,851	14,950	22,937	.....
R. C. C. note	2,652	.....	.....	.....
Loan for new money, approx.	90,000	.....	.....	.....
New first mtge. bonds	1,083,611	361,204	.....	.....
D. & S. L. first mtge. bonds	60,000	.....	.....	.....
D. & S. L. income bonds	292,020	97,340	.....	.....
New income bonds	.....	.....	986,248	.....
Preferred stock	.....	.....	.....	1,554,963
Totals	1,766,966	473,494	1,009,185	1,554,963

Capital fund, maximum payment	750,000
Sinking fund for first mtge. bonds	180,602
Sinking fund for income mtge. bonds	54,792

Terms of Consolidation

Under this plan the Denver & Salt Lake would be consolidated with the debtor company only in the event the holders of at least 90 per cent of the D. & S. L. income bonds voluntarily accept an extension of the maturity date of the bonds to that of the first mortgage bonds of the new company, and to a modification of the interest on the income bonds to provide for three per cent fixed interest and one per cent prior contingent interest. If the consolidation is effected on this basis the new company would assume the interest obligations on the Denver & Salt Lake first mortgage bonds and modified income mortgage bonds.

Allocation of New Securities

The holders of the bonds of the classes shown below would be entitled to receive, for each $1,000 bond and all unpaid interest thereon, as of the effective date of the plan, the following amounts of new securities:

Rio Grande Western first trust bonds, $908.80 new first mortgage bonds and $371.20 of new income bonds; Rio Grande Western consolidated mortgage bonds, $77.40 of new income bonds, $890.10, par value, of new preferred stock, and $322.50, par value, of new common stock; Rio Grande Junction first mortgage bonds, $943.71 of new first mortgage bonds and $235.45 of new income bonds; Denver & Rio Grande consolidated mortgage four per cent bonds, $298.78 of new first mortgage bonds, $142.90 of new income bonds, $285.79, par value, of new preferred stock, and $571.58, par value, of new common stock; Denver & Rio Grande consolidated mortgage 4½ per cent bonds, $307.63 of new first mortgage bonds, $147.12 of new income bonds, $294.25, par value, of new preferred stock, and $588.50, par value, of new common stock; the debtor's refunding and improvement mortgage five per cent bonds, $245.25 of new first mortgage bonds, $109.00 of new income bonds, $286.13, par value, of new preferred stock, and $722.12, par value, of new common stock; the debtor's refunding and improvement mortgage six per cent bonds, $258.30 of new first mortgage bonds, $114.80 of new income bonds, $301.35, par value, of new preferred stock, and $760.55, par value, of new common stock; the debtor's general mortgage bonds, $70.55, par value, of new common stock. The Reconstruction Finance Corporation would be entitled to receive, in settlement of its notes, with interest accrued to the effective date of the plan, and upon release of all the securities under pledge, $4,802,040 of new first mortgage bonds, $6,983,568 of new income bonds, and $1,591,601, par value, of new five per cent preferred stock.

Capitalization Under Second Plan

In the event consolidation is not effected as proposed, the total capitalization of the reorganized debtor would be substantially $141,876,512, and the annual charges as follows: Fixed interest, $1,765,973; capital fund, $750,000; prior contingent interest $328,133; first mortgage sinking fund, $156,592; contingent interest, $694,925; sinking fund for income bonds, $37,333; total charges before dividends on stock, $3,732,956. The allocations to the several bond groups would be the same as before. The new securities to which the Finance Corporation is entitled for the system bonds under pledge, together with the Denver & Salt Lake stock, Denver & Salt Lake Western stock, and miscellaneous collateral, would be deposited in escrow for the benefit of the Finance Corporation, the receipts from sales, interest, and dividends to be applied to payment of the Finance Corporation claim, under prescribed conditions.

Under either plan all the new common stock and preferred stock would be deposited under an escrow agreement which would permit its sale to connecting railroad companies, subject to approval by the Commission.

Commissioner Miller Dissents

Commissioner Miller noted a dissenting-in-part opinion in which he said that his objections to the commission's original plan, details of which were given in the *Railway Age* of August 5, 1939, pages 222 and 230, were equally applicable here. In that case Mr. Miller objected to the mandatory capital fund and expressed the view that the total capitalization authorized was too high. In the instant dissent he took the view that the common stock should be no par instead of $100 par value.

Commissioner Rogers did not participate in the decision.

RAILWAYS ARE NAZIS' WEAK POINT.—"Direct attacks on railways are indicated by reports of the R. A. F.'s sweep over freight yards in German-occupied Europe, and the destruction in one such raid of nine locomotives. British bombing attacks on railways seem likely to have a more immediate effect in reducing the Nazi concentration on the Russian front than attacks on any other sort of target. For such attacks tie up goods of every sort in every stage of production. . . . The German railways are known to be desperately short of rolling stock. American and British bombers must work to increase that shortage." —*From the New York Times.*

The Place of Transportation in the War Effort*

Materials and supplies and operation by present management are prerequisites of the future adequacy of transportation

By Ralph Budd

President, Chicago, Burlington & Quincy

UNLIKE many industries and individuals in this country, the railroads have now been engaged in war effort for nearly three years. Many persons were not much affected by the war until after Pearl Harbor. Many others date their consciousness of its influence from May, 1940, when the first formal step was taken by our government through the organization of the Advisory Commission to the Council of National Defense. Not so with the railways! War in Europe, which was imminent in the summer of 1939, and actually began in September of that year, brought us huge orders for certain materials and supplies. As is always true of a major change in industrial activity, the railroads immediately felt the effect. Before munitions or other war goods could be made, raw materials had to be moved to smelters, mills and factories, and before goods could be exported they had to be moved to the designated ports.

This increased traffic, however, was at first unevenly distributed. The identical events which created a lively trade in the East and thereby increased the traffic on railroads which handled it, also stopped the export of agricultural products and deprived the so-called granger roads of traffic. Nevertheless the railroads as a whole realized the importance of preparing for traffic incident to a war in Europe which might spread throughout the world.

Railroad officers well knew that there had existed a large and growing surplus of transportation facilities for several years past, but it was difficult to say how much more expansion should be undertaken in view of the uncertainties as to the war's duration, and as to United States' participation. A program of modernization which had cost nearly 10 billion dollars had been in process since 1923. New and rebuilt cars and locomotives of radically better types were provided, while tracks and signals, as well as shops and terminals, were greatly improved. The result, as of 1938, was a capacity per unit far beyond previous records. Since that time the equipment building program has been even more impressive. Class I roads installed new units during 1939, 1940 and 1941 as follows:

	Cars		Locomotives		
	Freight	Passenger	Electric	Steam	Diesel
1939	24,528	209	18	100	202
1940	65,545	154	21	126	272
1941	80,502	297	6	161	466
	170,575	660	45	387	940

This does not mean that the railroad car and locomotive supply now is larger than it was in 1938 by the sum of these acquisitions. The retirement of many obsolete and uneconomical cars and locomotives has served to reduce the total amount of equipment substantially. But all of the 171,235 cars and 1,372 locomotives which have been built during the last three years are of modern design and large capacity. They represent ability to handle freight and passengers far beyond the average car and locomotive. During the same three years 1939, 1940 and 1941 the number of highway trucks and automobiles was increased to a point substantially higher than at any previous time.

Inventory of Our Transportation Facilities

At the end of 1941 the national transportation plant consisted of approximately 233,000 road-miles of railway, 1,685,000 railroad-owned and 275,000 privately-owned freight cars, 38,000 passenger cars, 45,000 locomotives; 5,000,000 highway trucks 140,000 buses and 28,000,000 automobiles operating 1,469,000 miles of improved highways; inland waterways, including the Great Lakes, which were handling nearly 20 per cent of the total tonnage of the country and the pipe lines which were moving 10 per cent or more. Intercoastal and coastwise vessels provided low cost transit for vast quantities of oil, coal and lumber, whereas airplanes were increasing at a rapid rate even though they did not figure appreciably as carriers of freight. This inventory does not include the extensive urban and electric systems of the country.

These various forms of transportation took on the traffic load incident to war abroad and preparedness at home as it came along without any considerable strain simply by utilizing a larger proportion of their carrying capacity than had been needed during the preceding years, thus for the first time realizing the benefits from the extensive improvements which had been made. Reports for the first half of 1942 indicate that 48,769 new freight cars and 365 new locomotives were put into service in this period. That is a considerable amount and by moderately increasing the production during the last half of the year the railroad capacity could be substantially enlarged over what it was at the close of 1941.

The common measure of railroad performance is the number of cars loaded, although a better indication of the traffic is ton-miles, that is, tons moved one mile. To be conservative, carloadings are used here in reviewing the record since May, 1939, the month which marked the beginning of the war influence. Taking carloadings for 1938 as 100, the figure for 1939 was 111; for 1940 it was 119, and for 1941 it was 139. Loadings are currently about the same as they were at this time last year,

*From an address before the American Society of Civil Engineers at Minneapolis, Minn., on July 22, 1942.

but the trend of traffic has taken on a new characteristic. Prior to 1940 the peak of loadings was approached gradually from the summer level and culminated in October. Beginning with that year, however, the load curve has flattened out, now being relatively higher in the early months of the year and having a less pronounced peak in the fall. The result has been greatly to increase the yearly capacity of the carriers by utilizing more equipment in the off peak season. The accompanying Chart No. 1 shows weekly loadings. In 1940 there was an increase of 2,446,356 carloads, or 7.2 per cent over 1939, but surprisingly the peak week in 1939 was about 2 per cent higher than that of 1940. The flattening out of the curve is due to the fact that war production continues quite uniformly throughout the year.

By their very nature, the defense program, and later the war effort, involved the so-called heavy or durable goods industries. During the 1930's business activity was largely in consumer goods which favored the highway carriers rather than the railroads. With the revival of the heavy goods industries there was a sudden rise of unprecedented proportions in the kind of traffic peculiarly adaptable to railroad haul, that is, the mass movement of raw materials such as iron ore, coal and lumber.

In like manner, prior to the time when selectee movements began, travel had been to a large extent by highway, but large service groups go chiefly by rail. With our entry into the war last December and the subsequent development of the rubber shortage, impetus was given to the transfer of traffic, both passenger and freight, from highways and ocean ships to the railways. Even so, the common carrier bus has taken on a tremendous load, partly because of curtailment of the private automobile and partly because of the heavy travel to training centers and war industries. Similarly, trucks have proved themselves essential war carriers.

Railroads Also Engage in War Production

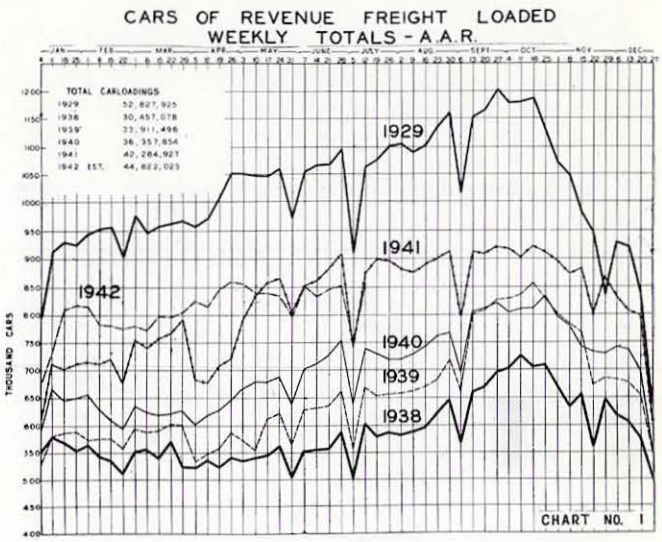
The railroads, in addition to their primary service of transportation, have been called upon to assist in other ways. Considerable war production work is being handled in railroad shops. Also, the large number of military training centers, new war production plants and plant enlargements, have necessitated building several thousand miles of tracks and supplying several hundred locomotives for switching them. Nearly all of the equipment and rail for these purposes has been supplied by the railroads. I should like to dwell on this last point for a moment.

Second-hand rail comes from two sources, that released by relaying with new rail, and that obtained by tearing up tracks. Rails in this latter category come chiefly from abandoned branch lines. Since 1916 total road mileage of railways has declined by about 21,000 miles. An additional 4,000 or 5,000 miles of lightly patronized branch lines could be abandoned with but little reduction in the amount of service rendered. Indeed we are informed by the government that it will require such an amount of industrial trackage during the last half of this year. Moreover, considerable railway equipment which is handling almost no traffic on branch line trains could be made available to the war effort. Director Eastman has made an appeal to state authorities to permit reductions of service which is but little patronized. Furthermore, in four or five cases to date, the federal government has requisitioned branch line tracks. It would seem therefore that the streamlining process which in peace time was proceeding at about 1,600 miles of line abandonment per year will be considerably accelerated as a contribution to the war effort.

Some quarters have voiced opposition to line abandonments, but the matter was well put recently by an interstate commerce commissioner when he said: "It is not a case of the railroads abandoning the public; the public first abandoned the railroads." The war load has inevitably accentuated the concentration of most of the traffic upon a relatively small percentage of the railroad mileage.

Will the Railroads Get Enough New Material?

Assuming that the handling of transportation will be left with private managements, the question of future



adequacy is largely one of how much material and supplies the carriers will be permitted to have in order to keep their physical properties in first-class condition, to replace units worn out or destroyed by accident, and to provide for a reasonable additional capacity to handle the growing volume of business. The railroads' ability to handle the current volume of traffic is proved by what is being accomplished, but the unforeseen shortage of rubber and of intercoastal and coastwise boats, especially those used for the movement of oil and coal, have thrown extraordinary traffic upon the rails. The longer haul of freight incident to the war effort has also increased the size of the job to be done.

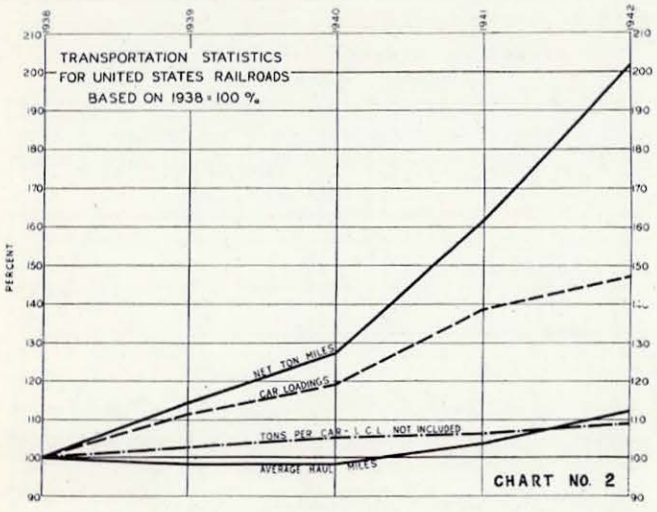
Large Increase in Length of Haul

The year 1942 will set an all-time high average haul of about 400 miles from origin to destination, for all freight moved by rail. This compares with 250 miles in 1910, 300 in 1920, 315 in 1930, and 350 in 1940. The average load per car likewise has increased from 34.5 tons in 1920, 35.7 in 1930, 37.7 in 1940 and 38.2 in 1941 to an estimated 39 tons in 1942. These factors, plus the increase in cars loaded, have brought net ton-miles to a point far above any previous time in our history, 1942 being estimated at more than double 1938, and 30 per cent above the boom year 1929. The average miles per car per day have also risen spectacularly. These data are shown in the accompanying Chart No. 2

While ton-miles of freight has set these new high records, passenger-miles have also been rising so rapidly that they are approaching the maximum of the top year,

1920. When the equally heavy bus travel is taken into account it is evident that common carrier passenger traffic is at an unprecedented high level.

Obviously the very severe use of our transportation facilities necessitates heavier than normal maintenance and repairs. New cars and locomotives and new rails are required in quantities above the average. These are matters which it would be serious to overlook, and yet there is a strong tendency to take for granted something which has proved to be so dependable. Defense Transportation Director Joseph B. Eastman has sounded several warnings. In an address at Philadelphia on April 9, 1942, he said: "So long as the machinery of



transportation is clicking smoothly, it is easy to overlook the vital part which it plays in the war effort. Once, however, it begins to skip and falter at any point, as it did not long ago at this very port of Philadelphia, we hear about it from every war quarter. The new locomotives and cars which the War Production Board is proposing for the remainder of this year fall far short of what I have believed to be necessary for the successful prosecution of the war effort."

A Warning from the Army

At New York on June 22, he stated: "The railroads face the prospect of continually increasing traffic, both freight and passenger; of doing most of the work which the coastwise and intercoastal ships used to do; and perhaps of taking on much of the traffic which rubber-borne transport now handles. It is not a reassuring prospect. It would seem to call for the building of more locomotives and cars. Some are being built, but not many. The War Production Board, which has the prodigious task of allocating the critical materials among needs which greatly exceed the supply, is banking on the ability of the railroads to carry on and do the growing work which lies ahead without any like expansion of facilities."

The next day, June 23, Brigadier General C. P. Gross, chief of the transportation division of the war department, testified before a House Committee as follows: "Their [the railroads'] performance has been so good that I think the War Production people are denying them facilities for the manufacture of an increased number of locomotives and cars that they will need in 1943, expecting their increased efficiency alone to fill the gap. But they cannot go on forever without any additions or replacements. Mr. Eastman has made a very fine case for the railroads but he has been denied. I think there should be some support to Mr. Eastman's contention that they need some additional facilities for the work they will have to do. The load on the railroads has been immensely increased, and it will continue to be. They have done a grand job. We should not let them down by denying them needed equipment."

Leave Operations in Capable Hands

Clearly, one prerequisite to adequate transportation for the future is sufficient material for repairs, replacements and new units, including track rails. There is another prerequisite of equal importance though perhaps less tangible.

It was a most fortunate circumstance that there were men in high positions on almost every important railroad in the United States who, in 1939 and 1940, well remembered the transportation crisis which accompanied World War I and led to the taking over of the railroads by the federal government at the close of 1917. Every one of these officers knew and knows that the principal cause of the trouble then was not the shortage of cars but the misuse of cars through failure to unload them promptly at destination. Every railroad officer likewise knew and still knows that the only way in which such a catastrophe could be avoided during the preparedness period and can be avoided during this war is by making sure that cars are not again kept idle as warehouses, but that they are kept moving as essential units of transportation.

Learned in Last War What to Avoid

Fortunately, too, most of the large shippers during this emergency have had in their organization men who have likewise learned from experience the necessity for keeping the cars moving. Credit should be given to the cooperation between the shippers and the railroads in this vital matter, and for the fact that they have throughout the years since 1923 perfected and maintained joint organizations known as the shippers regional advisory boards which have dealt with the subject of car handling in a practical and methodical way. They were prepared to function and they have functioned superbly.

It should be said also that government authorities having to do with the movement of war supplies have realized the importance of not holding cars under load, and have given the fullest of cooperation. There probably is not in all business history another example of cooperative action which has been so important as this one between shippers and the transportation agencies, or an instance where national benefits of such vital import have resulted and are resulting from combined efforts.

The second prerequisite, then, to adequate future transportation is to leave the handling of our tremendous war traffic to those who have the necessary experience and who have proved themselves capable of doing the job.

Our transportation plant, the greatest in the world, has carried its load and carried it well. It must continue to do so, for never before has victory been so dependent upon transportation.

Every transportation man, every shipper, and every receiver seems determined to keep our plant going whatever the circumstances may be. Let us give them the material they need. Let us continue to give them the confidence they deserve.

Peace on the T. P. & W.

AFTER seven months of turbulence, all is quiet once more on the Toledo, Peoria & Western. On July 16, a new schedule for train and enginemen went into effect and the operations of the railway were materially revised. This schedule differs materially from the one demanded by the strikers, who had asked for rules, pay and working conditions that were both confiscatory and impractical. After much legal bickering, however, the federal management of the railway undertook the responsibility of settling with the employees and worked out schedules, without benefit of lawyers, that have been accepted as fair to both sides and that have eliminated the punitive clauses of the original demands.

The principal points in the new schedule are outlined in the following paragraphs. Under the new rules, the matter of road versus switching service, which was one of the chief points of contention is taken care of under the following rule:

"Enginemen in road freight service required to perform switching at initial and/or final terminal, at points where yard engine is not employed, will in each case be paid on the minute basis for all time so engaged, with a minimum of 30 minutes. At initial terminal, switching time will be computed from time of reporting for duty until time of departure, and paid for at the pro rata rate. Time on the road trip to be computed from time of departure. Switching at final terminal to be paid for at the pro rata rate on the minute basis up to the point where road overtime would begin, computed from time of going on duty, and at time and one-half thereafter. Doubling train onto caboose will not be considered switching."

The rule for trainmen is substantially the same. Another interesting rule concerning terminal service is that covering hostlers, as follows:

"Hostlers will be assigned at all terminals where three or more engines are handled during an eight-hour period, or where the time consumed in performing hostler service amounts to two hours or more in an eight-hour period."

Under the practical application of this rule, and also because of an efficient re-scheduling of some trains and the consolidation of others, no yard engines are now employed on the T. P. & W. except in the East Peoria terminal. There are also no outside hostlers on the railway. The complete revision of operations includes the extension of yard limits, one effect of which is to permit the use of yard engines as helpers up the two per cent grade eastbound out of East Peoria yard.

The re-scheduled trains are operated with many more cars than the previous maximum of about 40 cars. Trains of 90 cars are now run frequently and the operations are so scheduled as to get them over the engine districts within eight hours. On July 18, for example, there was only 18 min. overtime on the entire railroad. In contrast, in 1941, there was a period of 93 consecutive days when the overtime on one yard trick alone averaged 12½ hours per day.

Locomotive utilization, which averaged only about 38 per cent under previous operations, will be nearly doubled under the present system, which has been worked out so that no locomotives lay over except at the Peoria terminal. This materially increases the capacity of the railroad, which has been further improved by the increased speed of trains. Trainloads of oil, for example, are now received at Lomax, Ill., on the west end of the line, and delivered at Effner, Ind., on the east end, a distance of 207 miles, in just over nine hours.

A further interesting rule in the new schedule reads as follows:

"Where it has been the practice or rule to pay a yard engine crew or either member thereof arbitraries or special allowances; or to allow another minimum day for extra or additional service performed during the course of or continuous after the end of the regularly assigned hours, such practice or rule is hereby eliminated."

In effect, there are now no arbitraries on the T. P. & W.

Communications . . .

Liked Our Research Review

WELLINGTON, N. Z.

TO THE EDITOR:

I am particularly interested in the booklet which your firm recently issued entitled "Railway Research—a Review" and the manner in which this information has been assembled reflects great credit on your organization.

As a regular reader of the *Railway Age*, I take this opportunity of congratulating the Simmons-Boardman Corporation on the high standard which is maintained in the various articles published from time to time on the railroad situation. Even in these distant parts we look forward to your valued publication.

J. SAWERS,
Asst. General Mgr., New Zealand Railways.

How to Give Temporary Customers the R. R. Habit

ROCHESTER, N. Y.

TO THE EDITOR:

The editorial on page 23 of the June 27 issue of *Railway Age* struck me as very forceful and timely.

If the railroads desire to do any post-war planning relative to maintaining large volume of passenger business, the time to do it is right now. Many young people are riding the trains for the first time and the impressions which they receive are going to last for a good many years. If the impression is favorable, they are likely to ride the trains after the war. If the railroads take the attitude of the "passengers be damned," they are likely to use some other method of transportation when conditions change.

If the character of an institution is the direct reflection of the men at the top, the vigilance and the courtesy of the employees dealing with the traveling public will depend upon such stimulation and guidance they received from the officials of the railroad.

A. G. MOORE,
Advertising Manager,
General Railway Signal Company

Helping Uncle Sam Get the Scrap He Needs

WASHINGTON, D. C.

TO THE EDITOR:

May I take this opportunity to express my appreciation for the article in your July 18 issue of the *Railway Age* in which you so ably covered the Chicago meeting of the National Rail Conferences?

This article has elicited much favorable comment from many sources and is a matter of considerable satisfaction to the Conservation Division of the War Production Board.

Cooperation of this sort is indeed productive of much good, and through such cooperation I am sure our broad scale objectives will be greatly facilitated.

It is entirely fitting that the *Railway Age*, read by all railroad

executives, should carry this article. I think you will recognize that representation by both the railroad associations, the Office of Defense Transportation, Army, Navy, Maritime Commission, and the Army and Navy Munitions Board together with various sections of the War Production Board represents a very comprehensive and concerted action never before witnessed. Such a correlation of effort marks an important forward step in the war program.

BERT C. BERTRAM,
Salvage Director, Railroads
Industrial Salvage Section,
Conservation Division, War Production Board

New Books . . .

Wages and Labor Relations in the Railroad Industry 1900-1941. 346 pages. 9¼ in. by 6¼ in. Bound in cloth. Published by the Bureau of Information of the Eastern Railways, Grand Central Terminal, New York.

This authoritative and timely book is a survey of labor relations in the railroad industry during the past 40 years, and an analysis of the results of negotiations and legislation affecting wages and working conditions as they concern the employee, the industry, and the security holder. It was prepared, mainly from official documents, under the direction of Harry E. Jones, executive secretary of the Bureau of Information of the Eastern Railways.

Following an introductory section—in which is summarized the 1940 wage status of various classes of railroad employees as compared with their situation in 1922 and 1929—is a concise but complete account of the history of railroad labor relations in this century, tracing the development of collective bargaining, wage movements, controversies over working rules and practices, and legislation establishing machinery for the settlement of disputes. The results of these developments are then analyzed in an extensive series of useful tables, based on Interstate Commerce Commission reports.

The first set of tables lists the average hourly, weekly, monthly and yearly compensation for each year between 1915 and 1940, inclusive, of 24 different groups of Class I railroad train service employees, including engineers, firemen, conductors and trainmen, in passenger, through and local freight, and yard service. The next set of tables compares for the same years the average number of hours worked per week with the average pay per week for the same groups of employees. The significance of some of these figures is then pointedly analyzed to show the effect of mileage restrictions and similar arbitrary practices. For example, in 1940 passenger engineers worked 28.3 per cent less hours per week than in 1915, but received 69.8 per cent more annual pay, while for the same years freight engineers worked 19.9 per cent less hours per week and received 90.5 per cent more pay per year. In 1940 the average annual pay for passenger engineers was $133 more than for freight engineers, while for passenger firemen it was $366 more than for freight firemen; in 1915, however, the passenger engineer received, on the average, $295 more per year than the freight engineer, but the passenger fireman received only $151 more than the freight fireman.

A set of 24 charts follows these tables, showing graphically how the purchasing power, or "real" wage, of each class of train service employees has fared since 1929 with the fluctuations in average annual earnings and the Department of Labor cost of living index. These charts show that in 1940 "real" wages had increased for all classes of employees by varying proportions up to 35 per cent. Another set of tables shows how the number of employees has decreased since 1916 while the average compensation increased. A comparable series of tables and charts presents the same detailed information for "all other" employees, and for important groups included in that classification, such as signalmen, dispatchers, shop crafts, clerical and maintenance of way workers.

The fluctuations in volume of railroad traffic and operating revenue, in the distribution of operating revenue, and in the relation of wages to "labor productivity" are shown in other tables. The final set of charts indicates graphically the relative fluctuations of annual income of different classes of railroad employees and stockholders.

In a supplementary section the terms of the 1941 wage increases and their effects on each class of employees are reviewed in some detail. To anyone concerned directly or indirectly with railroad labor relations this volume will be an indispensable time-saving handbook that can be depended upon for accuracy and admired for the scientific attitude with which the data were compiled and analyzed. It is not available through the usual trade channels, but only from the Bureau of Information of the Eastern Railways.

Proceedings of the American Railway Engineering Association for 1942. 808 pages, 6 in. by 9 in. Bound in cloth or half Morocco. Published by the Association, 59 East Van Buren street, Chicago. Price—cloth $8, half Morocco $9.

This volume contains the complete record of the activities of the association for the year ending with the annual convention last March, and includes the reports of the 25 standing and special committees and the discussions that followed their presentation at the convention. There are also included three addresses of special interest to railway officers, all dealing with the effect of the war on railway operation and maintenance, namely, by Joseph B. Eastman, director, Office of Defense Transportation; by Andrew Stevenson, chief, Transportation Equipment Branch, War Production Board; and by Dr. J. H. Cody, president, University of Toronto. Also included in the volume is a monograph on the Influence of Fatigue Strength of Structural Members upon the Design of Steel Bridges, by W. M. Wilson, research professor of structural engineering, University of Illinois.

The great diversity of subjects, 126 in number, covered by the reports include practically every phase of railway engineering and maintenance; many problems of operation, especially as operation is affected by facilities; and numerous studies and discussions of the economics of railway location, maintenance and operation. Because of its wide scope, this volume is of value equally to maintenance, engineering and operating officers. Substantially all of the reports represent the results of several years' intensive work by the respective committees, and it is this thorough study on the part of the committees that has given the proceedings of this association their high standing in engineering literature.

Space permits only bare mention of a few of the outstanding features. Among these is a discussion of freight-train resistance under various conditions of loading and speed. One report presents the warehouse requirements for handling quick-frozen products. Another discusses communication at hump classification yards and the modernization of passenger terminals; still another presents various phases of the problem of the college man in railway service; a fourth covers the problem of lubricating roadway machines; two reports include a series of studies in track and rail; a seventh includes a new specification for portland cement and a tentative specification for concrete; revisions of specifications for steel turntables and a new specification for rigid-frame design were contained in still another report. Other valuable information includes specifications for the prevention of erosion in natural waterways, for several kinds of pipe for culverts and for subdrainage and for the preservative treatment of Pacific Coast Douglas fir. Among the important features of the proceedings are statistical data for the previous year on rail failures, crosstie renewals and crosstie service records.

LONGEST ELECTRIFIED RAILROAD—In reporting the recent completion of a gap-closing program on the Swedish State Railways, the Railway Gazette (London) remarks that this system now operates the longest continuous electrified railway in the world. This line extends from Tralleborg, at the southern tip of Sweden—where boat service across the Baltic Sea normally makes connections with the German railway system—through Malmo, Stockholm, Storvik and Boden to the northern frontier, there joining a short connecting line in Norway, also electrified, which reaches the port of Narvik, above the Arctic Circle, repeatedly a scene of action in the present war. The distance between these terminal points is 1376 miles, of which 1349 miles is in Sweden, all operated electrically with 16,000 volt single-phase alternating current.

Railroads-in-War News

Carriers Set New Loading Record

Eastman reveals that l. c. l. cars averaged 8.9 tons during month of May

A loading record of nearly nine tons per car of freight was set in May by 115 major railroads, Joseph B. Eastman, Defense Transportation Director, announced on July 27.

The Class I roads, reporting under the terms of General Order ODT No. 1, which set an l. c. l. carload weight minimum of six tons effective May 1, loaded 417,855 cars during that month with an average of 17,858 lb. of merchandise—8.9 tons—to the car, Mr. Eastman said. Loadings of this type of freight by Class I railroads for the year 1941 averaged only about 5.3 tons.

An average of more than 7¼ tons per car was reported for May by the short-line railroads, whose loadings amounted to 14,683 lb. for each of 10,233 cars, the ODT announcement pointed out. Twenty-four railroads failed to attain the minimum weight required by the order. The ODT has undertaken an investigation to determine the facts in these cases before taking further action.

The best record of any railroad, large or small, was made by the three-mile span of track from Conyers, Ga., to Milstead—the Milstead Railroad. This road loaded 24 cars to an average of 35,440 lb. for a mark of more than 17 tons.

Topping the list of the Class I railroads was the 390-mile Elgin, Joliet & Eastern. The 265 cars originating on this line carried almost 11½ tons each. Second place went to the St. Louis Southwestern with a 22,526 lb. average in 1,311 merchandise cars originated.

Others in the first ten of the Class I railroads were:

	Cars	Lb. average per car
Pittsburgh & Lake Erie	2,209	21,972
Louisville & Nashville	8,235	21,250
Chicago & Eastern Illinois	1,423	20,682
Pennsylvania	55,715	20,334
Erie	13,052	20,206
Georgia	1,191	20,109
Northwestern Pacific	181	20,064
Southern Pacific	8,811	19,971

Besides the Milstead Railroad in the short-line group, the others in the first ten, with one exception, all topped the best efforts in the Class I list, it was pointed out.

A summary of the freight forwarding companies showed these companies loaded 10,712 cars with an average weight per car of 36,469 lb. First in this list was the Carloader Corporation with 20 cars at 44,766 lb. per car. Springmier Shipping Company was second with 161 cars averaging 39,750 lb. Third place was held by Associated Forwarders, who loaded 170 cars with an average of 38,990 lb. per car.

On July 1 the weight minimum for merchandise cars was automatically advanced by the general order to eight tons, and on September 1 a ten-ton minimum will become effective.

Since July 1, the savings in cars used for l. c. l. shipments have been mounting steadily, Mr. Eastman declared. For the week ending July 18, a new peak of 43.5 per cent in savings was reached. During that period 87,364 cars were loaded in merchandise service, as compared to 154,680 cars used in the comparable week of 1941, thereby releasing 67,316 closed freight cars for other service.

Roosevelt Approves ODT Funds Bill

President Roosevelt has signed H. R. 7319, the First Supplemental National Defense Appropriation Act, 1943, which carries $7,216,515 for the Office of Defense Transportation for the fiscal year 1943, and $500,000 for the Transportation Board of Investigation and Research.

Would Extend Shipping Privilege to Canadian Ore Boats

The Senate has completed Congressional action on H. R. 7100, a bill which would extend for the period of the present war and for six months thereafter the time within which vessels of Canadian registry may be permitted to transport iron ore on the Great Lakes between United States ports. The present law permits such transportation of iron ore during 1942.

Urges Greater Use of Gondolas

With a view to easing the growing tightness in the supply of hopper cars used for hauling coal, Joseph B. Eastman, Director of Defense Transportation, has urged shippers to order gondola cars or other types of equipment for the shipment of various bulk materials, not requiring the use of hopper cars. In sections of the country where a surplus of box cars exists, even these might be used, provided such equipment could accommodate the shipment, Mr. Eastman said.

The ODT Director commended the recent action of the executive committee of the Mid-West Shippers Advisory Board in Chicago, which adopted a resolution asking all shippers, including government agencies, to give particular attention to the coal tar situation when ordering open-top freight cars for loading and to specify optional types of equipment. Mr. Eastman concurred in the executive committee's assertion that thousands of car-days can be saved if all shippers cooperate.

ODT Would Avert Engine Shortage

Eastman says agency is taking steps to increase freight locomotive efficiency

Whether the present supply of freight locomotives will be large enough to meet motive power requirements of the near future is "problematical," according to a statement issued on July 27 by Joseph B. Eastman, Director of Defense Transportation.

Mr. Eastman went on to say that with the heaviest long-haul tonnage demands in history being placed upon the country's steam freight locomotives, the Office of Defense Transportation is seeking to avert a motive power shortage by taking steps to increase the efficiency of locomotive operation.

To aid the carriers in this direction the mechanical section of ODT's Division of Railway Transport, working with the section of materials and equipment, is maintaining a close check on the materials situation and is undertaking broad studies of locomotive utilization. These studies, Mr. Eastman said, cover every division of every railroad, and when completed, will give an accurate picture of the extent to which each road is making use of its power. From the information thus developed it will be possible to determine where a surplus of power exists, and where a shortage is threatened.

The mechanical section's general plan includes negotiating for the transfer of locomotives from roads that can spare them to roads that need them. Such use of locomotives will be carried out, where necessary, on a lease basis, the borrowing road paying the owner for each day the engine is in service.

Mr. Eastman also disclosed that an inspection tour of various railway shops by representatives of the mechanical section to determine the condition of unserviceable locomotives is now under way. Approximately 7.5 per cent of the total number of steam locomotives are now in the unserviceable class, he noted. The shop survey also covers the availability of materials for repairs.

The number of serviceable freight locomotives now available is about 18,000, Mr. Eastman pointed out. Material allocations to locomotive builders by the War Production Board will make it possible to turn out only about 265 new steam locomotives during the remainder of 1942.

That no motive power shortage has yet developed, in spite of the sharp increase in power needs resulting from the "unprece-

(*Continued on page 187*)

Oil Movement Is Somewhat Lighter

Surcease to eastern petrol famine amounts, however, to 749,000 daily bbl.

Rail movement of oil to the east coast during the week ended July 18 was at the rate of 749,070 barrels daily, according to an announcement by Petroleum Coordinator for War Harold L. Ickes.

This represents a decrease of 39,480 barrels a day over the record 788,550 barrels moved eastward each day during the preceding week. The drop, Mr. Ickes said, is attributable largely to the fact that many of the extra cars which were made available for loading in the week of July 11 had not yet had time to return to western shipping points to be reloaded.

In handling the movement the 33 oil companies loaded 24,971 cars. Including cars that were on the way back west for reloading, it is estimated that the east coast service employed 62,000 cars, taken largely from other sections of the country.

Meanwhile, President Roosevelt has signed H. R. 6999, the bill which authorizes the appropriation of $93,000,000 for the construction of a barge canal across northern Florida and at least two pipelines designed to transport oil from the western coast of Florida to the eastern coast and from oil fields in Mississippi to either Savannah, Ga., or Charleston, S. C.

At the same time Mr. Ickes has announced the appointment of W. C. Kinsolving, of Beaumont, Tex., as assistant director of transportation, succeeding R. B. McLaughlin. Mr. Kinsolving comes to the OPC from the post of general operating superintendent of the Sun Pipeline Company—Yount-Lee Pipeline Company trunk system.

Also, Mr. Eastman, on July 25, announced that the flow of oil by rail from the southwestern fields to the eastern seaboard is expected to be substantially increased within a few weeks through a system of solid-train movements of tank cars now being inaugurated.

The new plan for solid-train movement, worked out by the railroad companies, the Association of American Railroads, and transportation committees of the Office of Petroleum Coordinator, in cooperation with ODT, is designed to cut down materially the time consumed in the turn-around of tank car equipment, thereby making more cars available for the oil haul.

Under the new system, loaded tank cars are being assembled at terminals close to producing centers in the Louisiana, Mississippi, Texas, and Oklahoma fields. The cars are switched into trains of 60 tanks and are routed in a solid block to a destination nearest to the ultimate consumers.

ODT Appointment

Joseph B. Eastman, Director of Defense Transportation, has announced the appointment of John R. Flippin, of Memphis, Tenn., as special representative of ODT's Division of Railway Transport, with headquarters at Memphis.

Mr. Flippin, former publisher of the Memphis Commercial Appeal, has long been identified with civic, industrial, and railroad enterprise in the south. He served for many years as a director of the Missouri Pacific and at the time of joining the field staff of ODT he was a director of the Nashville, Chattanooga & St. Louis and the Union Railway of Memphis.

New Yorker Named to Division of Local Transport

James J. McNicholas, Chief of the Service Bureau of the Transit Commission of the State of New York, has been appointed consultant to the Division of Local Transport, Office of Defense Transportation, Joseph B. Eastman, ODT Director, announced this week.

The appointment was described by Mr. Eastman as a further step in the ODT program of collaboration with State and local authorities in furtherance of nation-wide conservation of transit facilities.

Mr. McNicholas will represent both the Transit Commission, which has authority over all transit operations in the five boroughs of New York, and the ODT in the further development of a war transportation program suitable for the nation's largest city.

WPB Scraps Branch Line, Not Waiting for I.C.C. Permit

Short-circuiting routine I. C. C. abandonment procedure, the United States government has requisitioned 53 miles of the line of the Louisville & Nashville between Winchester, Ky., and Maloney for use in war production. Receipt for the property was given the railroad on July 23 by the Salvage Division of the Metals Reserve Company, a branch of the War Production Board. Salvaging of the materials will be begun either by railroad labor or by a contractor at an early date.

The stretch of track appropriated was a part of the Lexington & Eastern which ran from Lexington, Ky., to Jackson, and was acquired by the Louisville & Nashville in 1910 to develop the coal fields in the Hazard territory. The latter road constructed its North Fork extension from Jackson to McRoberts shortly thereafter and acquired the Louisville & Atlantic, extending from Versailles through Irvine to Beattyville. It built a short connection between Beattyville and Maloney, thus giving the L. & N. a through route from Winchester through Irvine, Beattyville and Maloney to McRoberts.

Thereafter the line from North Winchester to Maloney was operated for local business only. Of late much of this business has been diverted to other means of transportation, and in April of this year the L. & N. asked the Interstate Commerce Commission for permission to abandon the line because the operation in the past had resulted in substantial losses, and because of the need for materials for maintenance and for additional tracks in plants and depots under construction or to be constructed by or for the government elsewhere on the L. & N. A hearing was held at Winchester June 11 to 13 to consider the application.

Trucking Orders Revised by ODT

Contract and private carriers must reduce total mileage by at least 25 per cent

Revised standards for conservation of trucks operated by contract and private carriers in both local and over-the-road-service have been set up in a new order issued by the Office of Defense Transportation.

The new order (General Order ODT No. 17) will supplant General Orders ODT Nos. 4 and 5, governing over-the-road operations of contract and private carriers, and those portions of General Order No. 6 which govern local delivery operations of such carriers.

Portions of General Order No. 6 which apply to local delivery operations of common carriers will remain in effect. A revision of General Order ODT No. 3, governing over-the-road operations of common carriers, already has been issued, details of which were given in the *Railway Age* of July 18, page 109.

General Order No. 17 requires that on and after August 1, trucks operated by contract and private carriers in over-the-road service be loaded to capacity on a considerable portion of the trip out or back and that the operator use due diligence to obtain a full load over the entire round trip.

On and after September 1, contract and private carriers must endeavor in good faith to rent or lease a truck prior to its departure from any point without a load. This will include registering any truck for which no load has been obtained with a Joint Information Office and, in the event no such office has been established in the vicinity, making appropriate inquiries of other carriers.

Joint Information Offices are in process of being established by carriers and carrier associations throughout the country under General Order ODT No. 13. This order was amended to tie in with General Order No. 17 and revisions in General Order No. 3 and a new provision was added to permit employees of carriers to serve as part time managers or employees of Joint Information Offices, subject to prior approval of the ODT.

As the new and revised orders take effect, all truck operators will be divided into two main classifications—common carriers and motor carriers. Common carriers are those which hold themselves out to the general public to transport property for hire. Contract and private carriers, who cannot pick up loads for hire, are defined for purposes of conservation of equipment as motor carriers.

Under General Order No. 17, contract and private carriers will be required to reduce their total mileage by at least 25 per cent as compared with the corresponding month of last year, with certain adjustments for increases or decreases in business during the intervening period.

They also must eliminate all special deliveries, except to hospitals, and all call-

backs. They also are prohibited from making more than one delivery a day to the same point from any one point of origin, except under certain circumstances.

Deliveries extending up to 25 air miles beyond the boundaries of a municipality or involving one-way trips up to 25 miles in length are defined by the orders as local deliveries. All others are considered as over-the-road deliveries.

As in Order No. 3, Revised, all operators affected by Order No. 17 must:

1. Eliminate wasteful operation and duplication of parallel services, and curtail schedules and services to the extent necessary to comply with the order.
2. Limit the speed of trucks to 40 miles an hour.
3. Conserve and properly maintain tires and equipment.
4. Lease or rent their motor trucks whenever practicable or necessary to comply with the order.

Nelson Warns on Back-Hauling or Cross-Switching

Government agencies engaged in war procurement are forbidden to require weighing of materials which would lead to back-hauling or cross-switching, by War Production Board Directive No. 6, issued on July 24 by Chairman Donald M. Nelson. The announcement explained that some procurement contracts have called for weighing by railroad or warehouse scales, and occasionally this has necessitated a considerable extra movement of traffic.

The new "directive" provides that in all such cases contracts shall authorize weight determination by estimate, sampling, or some other method which will not involve carrying materials by unnecessary additional mileage. Procurement agencies are also directed to modify existing contracts to conform to the established policy, so far as is practicable.

ODT Committees Speed Up Oil Transport

Petroleum Transport Advisory Committees set up recently by the Office of Defense Transportation are playing "an increasingly important part in stepping up" the transportation of fuel oil and other petroleum products into the Atlantic seaboard area, according to an announcement by ODT.

Forty-eight state committees and 13 regional committees, composed of representatives of the petroleum transport industry and oil companies, have been established under the Petroleum Carriers' Section of ODT's Division of Motor Transport, the announcement pointed out.

The principal function of the committees is to assist in the diversion of petroleum and petroleum products from the tank cars to tank trucks in hauls of less than 100 miles, in cooperation with the program of the Section of Tank Car Service. This program, it was stated, is designed to relieve the petroleum shortage in the east by making more tank cars available for the long hauls.

In the last three weeks, the statement continued, at least 1,000 tank cars have been released for long-haul service in this way in a portion of the eastern United States, and the number is steadily increasing. Once such cars have been released by diverting traffic to tank trucks the cars are expected to remain in long-haul service as long as an emergency exists.

Eastman Consolidates Bus Jurisdiction

Transfer of the bus section of the Division of Motor Transport, Office of Defense Transportation, to the Division of Local Transport has been announced by Joseph B. Eastman, ODT Director. The change, according to ODT, gives the Division of Local Transport, headed by Guy A. Richardson, jurisdiction over all buses and over virtually all forms of public passenger transportation except railroads.

The Intercity Bus Section, of which Robert E. Maxwell, former treasurer of the Greyhound Corporation, is chief, is in charge of the program for conservation of intercity buses. A general order and several special orders regulating the use of such equipment already have been issued.

"This transfer of jurisdiction over intercity buses brings all bus matters under one administrative unit instead of two as hitherto," declared Mr. Eastman in announcing the change. "Bus companies engaged in both city and intercity operations will no longer have to deal with two separate divisions of the Office of Defense Transportation, and the need of determining to which division many intermediate bus operations are accountable will no longer exist. Policies for conserving bus tires and eliminating unnecessary or duplicated services will now be applied uniformly to all bus lines regardless of their length."

Meanwhile, Mr. Eastman announced the appointment of an advisory committee to assist the ODT in dealing with the problem of manpower shortages in the intercity bus transportation industry. The necessity for immediate steps to prevent further loss of trained operating personnel was brought out at the committee's initial meeting on July 24 with Otto S. Beyer, Director of the ODT's Division of Transport Personnel.

Members of the committee, chosen by the Association of Motor Bus Operators, informed Mr. Beyer that any further loss of trained operating personnel would result in serious curtailment of over-the-road service.

WPB to Make Inventory of New Trucks and Buses

A country-wide inventory of new commercial motor vehicles was ordered by the War Production Board on July 24 in an effort to "tighten" the rationing program that began March 9. In a separate order the WPB also redefined the term "new commercial motor vehicle."

At the same time drastic new cuts in the list of trucks eligible for tires are being studied by the Office of Price Administration as a measure to keep "the most vital" vehicles rolling, according to an announcement by Price Administrator Henderson.

The WPB statement declared that a shortage of certain types of trucks and the increasing demands of the Army and Navy make it imperative to determine the location and type of every new commercial vehicle in the country.

The inventory will be taken as of the close of business July 31, and will cover all types of new commercial motor vehicles, such as light, medium and heavy trucks, truck trailers, ambulances, hearses, station wagons, off-the-highway vehicles, truck and bus chassis, and vehicles fitted with commercial pick-up devices. It will not apply to taxicabs and integral type buses.

Mr. Henderson's statement declared that "the rapidly increasing tempo of our war program which has put vast numbers of heavy trucks on 24-hour shifts, together with other factors, has caused the demand for truck tires to increase far beyond the estimates made at the time tire rationing was instituted."

ODT Announces Exception to General Order No. 16

The Office of Defense Transportation has announced that certain grain, coal, and other freight destined for offshore shipment have been exempted from the application of General Order ODT No. 16 which prohibits the movement of export freight into port areas without an ODT block or unit permit.

Exception Order ODT No. 16-1, which became effective July 28, suspends the provisions of the general order as it applies to:

(1) Bulk grain, soy beans, flaxseed, and malt moving to elevators in Houston, Galveston, and Texas City, Tex., and to elevators in any other United States port where the carrier has ascertained that adequate shortage or handling facilities at the elevator are available;

(2) Coal or coke destined for shipment by water to United States ports when the cargo can be handled at the shipping port over a dumping machine or trestles located at tidewater;

(3) Any property to ports on the Great Lakes;

(4) Property consigned to United States Navy supply officers at freight terminals, Navy Yards or supply depots controlled and operated by the Navy and located in any port area;

(5) Military impedimenta moving in connection with troops to embarkation points.

ODT Would Avert Engine Shortage

(*Continued from page 185*)

dented" volume of freight traffic, is due, Mr. Eastman said, to several factors:

1. The utility of motor transport in handling many types of short-haul freight, both merchandise and bulk cargo. Use of trucks for short-haul service has released both locomotives and freight cars for longer rail movements.
2. Reduction in the number of local freight trains moving over short districts, subdivisions, and branch lines of large systems.
3. The effect of General Order ODT No. 1, fixing minimum weight limits for l.c.l. traffic. This order has resulted in the release of nearly 65,000 cars a week for through-freight loading and has made available an increasing number of locomotives for long-haul service.
4. Increased efficiency of locomotive servicing. In 1929 freight locomotives seldom ran further than 100 to 150 miles before being uncoupled

from through trains at district terminal points for servicing and necessary running repairs. At present freight engines frequently run 400 to 500 miles before being cut from trains and sent to the roundhouse.

"During the first four months of 1942," concluded Mr. Eastman's statement, "the 121 major rail systems hauled 188 billion revenue ton-miles—188 billion tons of paid freight one mile. The former all-time peak was the first four months of 1929 when 141 billion tons of paid freight moved one mile, a 25 per cent increase. In these first four months of 1929 the Class I railroads had 24,616 serviceable steam freight locomotives to do the job. In the first third of 1942, 17,893 freight engines took care of the new record haul.

"This difference in the number of locomotives, showing a decrease of more than a third under the 1929 figure, does not mean that the railroads today are working miracles with the engines they have available. It means that the engines are bigger, that they have a greater tonnage capacity, and that they are handling longer hauls of more heavily loaded cars."

WPB Requisitions 1,000 Miles of Track

Nearly 1,000 miles of abandoned and non-essential railroad track, including rails, switches, fastenings, and other track equipment have been taken over for war use during the past six months by exercise of the requisitioning authority of the War Production Board, the Inventory and Requisitioning Branch of this board announced on July 23.

Twelve seizures authorized by WPB secured title to the material, much of which was immediately usable in its existing form by the Army and Navy, it was stated. Other lots were directed to steel mills for use as scrap, and the remainder is now being allocated for various other essential uses.

Including sidings, spurs and miscellaneous track-side equipment taken over, the WPB declares that it is probable that approximately 200,000 tons of iron and steel products were made available for strategic purposes.

Rails, switches and fastenings in usable condition serve to provide new trackage and repair material in and around arsenals, docks, ammunition depots and, in some cases, transportation to new camp sites, it was pointed out. Rail which requires treatment before it can be used again for its primary purpose is shipped to rolling mills for reprocessing, while material which cannot be used in its existing form finds its way into some phase of the war effort as scrap metal.

Materials and Prices

Following is a digest of orders and notices of interest to railroads issued by the War Production Board and the Office of Price Administration since July 19.

Electric motors—New motors will be released only for the most important war and civilian requirements, it was announced July 24, when detailed specifications were issued by WPB. Large motors of any kind, used or new, are not available for other than war or essential civilian purposes. In a broad move to conserve materials, producers have been requested to undertake a voluntary simplification program covering types and designs of motors. Overloading of present equipment beyond its rated capacity will be an integral part of this program.

Gasoline—Limitation Order L-70, as amended July 20, reduces by 25 per cent deliveries to filling stations in the counties adjacent to the Eastern gasoline rationing area to prevent excessive sales. The buffer zone includes all of the counties of western New York, Pennsylvania, Maryland, West Virginia and Virginia where curtailment was in effect for a time during the winter months and then lifted, and also 76 additional counties in eastern Tennessee and Alabama and western Florida where there has been no previous curtailment. The straight 50 per cent cut previously in effect in the rationing area has been rescinded, effective July 22, since deliveries to filling stations in the rationing area will be controlled on a coupon basis. Restrictions permitting filling stations in the rationing area to remain open no more than 12 hours a day and 72 hours a week will apply also in the buffer zone. Deliveries of motor fuel may no longer be made outside of regular hours even to preferential users as defined in the order, but may be made after hours for military use or for emergency use affecting life, health or property. No motor fuel of any kind may be shipped from the rationing area for use outside that area.

Hand tools—Limitation Order L-157, issued July 20, requires simplification of sizes and standards of all hand tools. Hand shovels, spades, scoops and telegraph spoons are the subject of Schedule I which accompanies the order. After August 9, no material for their manufacture may be supplied to any producer unless it conforms to the standards in the schedule. After the end of August, tools which do not conform to the schedule may not be manufactured or delivered by any producer, or accepted by anyone from any producer. Schedule I prohibits the use of alloy steel in any shovels except those used in direct mining operations.

Manufacturing—All manufacturers, including railroads, who are required to obtain priority assistance under the Production Requirements Plan must file the revised form PD-25A with WPB not later than August 10 in order to obtain such assistance for the fourth quarter, it was announced on July 23 with the issuance of new forms. The new PD-25A, changed in a number of respects, serves as the basis on which the Requirements Committee will determine total requirements for critical metals for the fourth quarter by industries. It is also the manufacturer's application to WPB for preference rating assistance in buying authorized quantities of critical materials. Elimination of form PD-275 and simplification of PD-25A will make it easier for the manufacturer to meet the deadline.

Oil cans—Supplementary Order M-81-b, issued July 23, prohibits the manufacture of lubricating oil cans from terneplate sheets not in the possession of the can manufacturer on February 11, the date of issuance of the original M-81 regulations. From July 23 to September 30, a canner may use terneplate amounting to 10 per cent of the combined area of tinplate, terneplate and blackplate, used for the same purpose during the calendar year of 1940.

Priorities in force—The fourth of a series of supplements to be used with the revised edition of printed compilation of priorities orders and forms, "Priorities in Force," dated to May 31, 1942. The supplement adds to the revised publication the orders issued for the period July 9 through July 22.

Rubber—Amendment No. 9 to Order M-15-b-1, issued July 21, revises specifications for rubber belting, hose, packing and other civilian products. The changes are expected to result in the saving of from 300 to 400 tons of crude rubber per month.

Rubber tires—New cuts in the list of trucks eligible for tires are being studied to keep the vital vehicles rolling, it was announced July 24. Applications for truck tires by eligible operators have outrun the quotas. More than 100,000 trucks were taken out of the tire market when beverage and other luxury carriers were dropped from the preferred list for replacements. Vehicles badly needed on a military construction job in the Far West face idleness unless they can be provided with tires soon.

Warehouses—Amendment No. 6 to Order M-21-b, issued July 23, forbids warehouses, after August 1, to sell steel on ratings lower than A-1-a, except for maintenance and repair, with some specific exceptions, and provides that warehouses must operate under all other delivery restrictions applicable to steel producers. Warehouses were previously required to sell on ratings as low as A-10 and have been able to replenish supplies only on top ratings. Maintenance and repair parts may be delivered below A-1-a ratings, provided that deliveries in any calendar quarter do not exceed 3 per cent to 5 per cent of the total quarterly quota of a warehouse for such products. Flat rolled products below prime grade may be delivered down to A-3 ratings, and cast iron soil or culvert pipe larger than 4-inch down to A-10. Nails, bale ties, small pipe, fence wire and posts, poultry netting, steel roofing and similar products may continue to be delivered on lower rated or unrated orders.

Prices

Copper—Amendments to Revised Price Schedule No. 15 on copper, issued July 27, make clear that maximum prices which may be charged on sales of copper in carload lots are applicable to all other sellers as well as to refiners and producers. For sales of copper in carload lots, the price schedule provides a maximum price of 12 cents a lb., Connecticut Valley base. For sales in less-than-carload lots, refiners and producers may charge 12⅛ cents per lb. f.o.b. refinery. Sellers other than refiners or producers on sales of less-than-carload lots may add to delivered costs premiums ranging from ¾ to 2 cents a lb., dependent upon the size of the shipment. The prices are applicable to all copper other than casting copper.

Lumber—Revised Price Schedule No. 97, which governs prices for Southern hardwood lumber, was modified, effective July 27, to place under specific prices or provide pricing formulae for most types of Southern hardwood lumber which have been governed by the general maximum price regulation, and to make several internal price adjustments. Maximum prices in dollars-and-cents are added to the regulation for maple lumber, No. 2 construction boards, thick oak stock and thin stock in certain other species. Certain lumber mills in the Southern hardwood area which obtain a large percentage of their oak logs and rough timber within the Central hardwoods area cannot compete with South Central producers for the purchase of these logs if they must dispose of their oak lumber at Southern prices. Accordingly, the regulation permits such mills to sell their oak lumber at South Central prices.

Paper—Price Regulation No. 182, issued July 23, establishes reductions from current manufacturers' and distributors' prices for kraft wrapping papers and certain kraft bag papers. The action cuts prices approximately 25 cents per cwt. to the levels existing October 1 to 15, 1941. Distributors' mark-ups which existed prior to the inflationary period in the paper market during the latter half of 1941 are restored by the order. Zone, quantity, sheet, basis weight and other differentials based upon those established in the industry are also set forth.

Prices—A chart depicting the effect of price control in limiting price advances in various groups of commodities during the 33 months from August, 1939 to April, 1942 was released July 21. The general maximum price regulation was issued on April 28, 1942, and brought under an over-all ceiling the balance of virtually all commodity groups used in the chart. Most raw farm commodities still are free of control because of the special standards set in the Emergency Price Control Act of 1942. Processed farm products are covered by the general regulation. In the case of metals and metal products, 92 per cent of which were under OPA controls on April 18, 1942, the chart shows that price increases were held to 12 per cent over the 33 months. Farm products, only 4 per cent controlled by last April, rose about 72 per cent during the same period.

GENERAL NEWS

Transport Board's Funds in Question

House conferee insists that present funds are all that agency will get

The question of whether or not the Transportation Board of Investigation and Research will get any more funds after it spends the $643,330 now appropriated for it came up in both houses of Congress this week. As noted in last week's issue, the Board was given $500,000, plus its unexpended balances as of June 30, 1942, by Congress with a stipulation that "such total amount shall be so used as to complete the studies, investigations and reports authorized and required by part I, title III, of the Transportation Act of 1940."

When the First Supplemental National Defense Appropriation Act, 1943, which carried the funds for the Board, was passed in the Senate, Senate Majority Leader Barkley, in agreeing to the stipulation which was insisted upon by the House, said that it "certainly cannot bind any future Congress, and it cannot even bind the present Congress, as every senator knows, because before the expiration of the one-year period for which this appropriation is made, if Congress sees fit to appropriate more money it can do so." Senator McKellar, Democrat of Tennessee, who was chairman of the Senate appropriations subcommittee which allowed the Board the $500,000, agreed that Mr. Barkley was correct regarding the legal aspects of the case, but he went on to express the view that the Board will make a full report within the amount of money which has been provided.

Later, on July 27, Senator McKellar read in the Senate a letter to him from Representative Cannon, Democrat of Missouri, who was chairman of the House conferees on the bill, objecting to the interpretation placed upon the conferees' action in limiting the funds during debate in the Senate.

Referring specifically to the language of the bill limiting the funds, Mr. Cannon declared that "it seems to me that this is clear and means what it plainly says and should not be held out to the Board as having no effect in the law."

Speaking in the House on the same day, Mr. Cannon said that it was his opinion, as chairman of the House conferees on the bill, that the purpose and intent and wording of the House amendment "is perfectly clear and that it does mean what it says, namely, that this Board has $643,000 with which to complete its duties under the law."

Would Increase Retirement Act Annuities

Representative Cannon, Democrat of Florida, has introduced in the House H.R. 7429, a bill to provide for a 25 per cent increase in annuities under the Railroad Retirement Act of 1937.

Baggage Agents Cancel Meeting

The annual meeting of the American Association of General Baggage Agents, scheduled to be held at Omaha, Neb., October 6 to 8, has been cancelled by unanimous decision of the association's executive committee, which did not consider the gathering essential to the functioning of the organization under current conditions. Activities of the various standing committees will continue.

P.R.R. "Train Talks" Tells of Railroads at War

In order better to acquaint its customers with the achievements of American railroads to date in meeting wartime demands for freight and passenger service, and to suggest difficulties that may develop in the future, the Pennsylvania has prepared a July issue of "Train Talks," a 12-page illustrated booklet, which has been given wide distribution on local and through trains and through ticket offices.

Tap Line Divisions

Acting to bring the situation into line with the Ex Parte 148 freight rate increases, the Interstate Commerce Commission has issued an order prescribing new maximum switching charges or divisions which may be paid, from and after August 17, to tap lines by trunk lines out of rates on interstate shipments of lumber and forest products. The order, dated July 6, is a supplemental order in I. & S. Docket No. 11, the Tap Line Case.

Would Grant D. L. & W. Motor Carrier Rights

The Delaware, Lackawanna & Western would be authorized to operate as a common carrier by motor vehicle between various points in New Jersey which are now served by it if the Interstate Commerce Commission adopts a recommended report of its Examiner G. P. Werner.

The authority would be granted subject to the usual conditions that the service shall be auxiliary to or supplemental of the railroad service; that freight shall not be interchanged at any point not a station on its rail lines; and that shipments it receives or delivers shall be limited to those which it receives from or delivers to its rail lines under a through bill of lading covering a prior or subsequent movement by rail.

Gormley Praises Railroad Shippers

A.A.R. officer says they have contributed much to the carriers' achievements

Shippers and receivers of freight came in for a pat on the back during a round-table radio discussion over station WWDC in Washington, D. C., on July 30, when M. J. Gormley, executive assistant of the Association of American Railroads, declared that organized shipper cooperation has contributed much to railroad accomplishments since war broke out.

After pointing out that the outstanding job being done by the railroads is the result of preparations started about 20 years ago to meet just such an emergency, Mr. Gormley added:

"But no matter how well equipped, well operated and well organized the railroads are, they could not have done, and could not continue doing, the tremendous job expected of them without the full cooperation of those who use them. The railroads are receiving shipper cooperation to an amazing degree, and this organized help has been an important factor in the fine record made by the railroads since the war started."

Since the first shippers' advisory board was formed in the Northwest in 1923, Mr. Gormley stated, this country has never experienced a general car shortage. This, he held, is evidence of what can be accomplished in the field of transportation by cooperative effort.

Alvin W. Vogtle, president of the National Association of Shippers Advisory Boards, said that "shippers and receivers are doing everything possible to see that freight cars are kept moving, and that the greatest possible use is gotten out of the railroad plan."

They are doing this, Mr. Vogtle continued, by such things as heavier loading and more prompt loading and unloading of cars, and by cleaning them of debris before returning them to the railroads for further service.

According to Ralph E. Clark, assistant to the chairman of the Car Service Division of the Association of American Railroads, the work of the shippers' freight car efficiency committees scattered throughout the country is "highly effective in the war effort."

"The activities of these committees," he explained, "have resulted in a great reduction in the detention of cars. They are also largely responsible for the increase in the average load per car. For instance, in the first three months of this year, the

average freight car was loaded about one ton heavier than in the corresponding period last year."

Mr. Clark said that government agencies are working closely with the railroads to provide adequate transportation during the war.

Sleeping Car Conductors in O. R. C.

Amalgamation of the Order of Sleeping Car Conductors with the Order of Railway Conductors became effective July 3, following approval of the action by a membership referendum in the former organization and by the Railway Conductors' Board of Directors. The union affairs of the Pullman conductors will be handled through a general committee similar to those functioning on various railroads, of which M. S. Warfield, recently president of the Order of Sleeping Car Conductors, will be head. He also will serve as a vice-president of the Order of Railway Conductors.

April Bus Revenues 67.9 Per Cent Above 1941

Class I motor carriers of passengers reported April revenues of $18,702,641 as compared with $11,141,872 in April, 1941, an increase of 67.9 per cent, according to the latest compilation prepared by the Interstate Commerce Commission's Bureau of Transport Economics and Statistics from 145 reports representing 150 motor carriers. Passengers carried increased 59.7 per cent, from 15,945,388 to 25,463,146. At the same time the commission reported that railroad coach revenues for April totaled $31,380,434 as compared with $18,771,238 for the same month last year, an increase of 67.2 per cent.

The breakdown by regions of the bus revenue and traffic figures, which exclude data on charter or special party service, is given in the accompanying table.

	Passenger Revenue		Passengers Carried	
	April, 1942	April, 1941	April, 1942	April, 1941
New England Region	$870,623	$552,639	2,278,792	1,402,014
Middle Atlantic Region	2,105,563	1,394,600	4,116,367	2,728,298
Central Region	2,968,424	1,928,011	4,517,142	3,034,597
Southern Region	5,101,588	2,993,828	6,374,260	3,864,615
Northwestern Region	551,304	373,846	447,826	320,166
Mid Western Region	1,555,060	890,708	1,240,397	748,544
Southwestern Region	2,801,840	1,420,783	3,262,288	1,654,357
Rocky Mountain Region	182,609	93,998	115,954	71,326
Pacific Region	2,565,630	1,493,459	3,110,120	2,121,471

High Water Halts Traffic at New York

Heavy rainstorms on the northern outskirts of New York City on the morning of July 27 caused high water that interrupted service for several hours on the main passenger route of the New Haven and the Harlem division of the New York Central, which use the same electrified line from the northern edge of the city into Grand Central Terminal. It was necessary to cut off electric power in this section about 7.30 a. m., when the third rail was flooded at several points, and many inbound commuter trains were affected, as well as the through service of the New Haven between New York and Boston and other New England cities. Trains on the main line of the New York Central do not use the tracks that were put out of service, and were not seriously delayed.

On the New Haven close to 50 trains were held up, and on the Harlem division of the New York Central the number delayed was nearly as great. Most of the incoming trains were able to reach suburban stations from which passengers could obtain transportation by taxi, bus or subway, but others returned to their starting points. Several extra trains were operated from Pennsylvania Station via the Hell Gate Bridge to serve New Haven through passengers. Operations on the flooded tracks were restored shortly after noon, and service was close to normal for the evening rush hour. Other branch lines in the New York area also suffered washouts that caused some delays to local trains.

Plans to Pull Off Local Trains

A survey of local rail and bus passenger service, "to lay the basis for elimination of duplications and to make possible the release of locomotives and cars for other uses," has been undertaken by the public service commissions of the states at the request of Joseph B. Eastman, Director of Defense Transportation.

"There are many places in the nation," Mr. Eastman said in his letter to the state commissions, "in which local accommodation train service is paralleled by bus service. This is true both as to main lines and secondary lines. In all such cases where the bus service is reasonably adequate it would seem that under present conditions, the local train service should be discontinued and the equipment placed in more important uses. This should be done in spite of some degree of local dislocations and inconveniences, for the wartime needs of the nation must be paramount."

Mr. Eastman asked that all applications for discontinuance of services which are now pending before the various state commissions be expedited, and as many requests as possible be granted.

"It may be and possibly is the case that there are situations where duplicate train and bus services exist," Mr. Eastman wrote, "and where the bus service could be discontinued with less inconvenience to the public than the train service. We should like to be advised of such situations also, because the need for buses throughout the country is as great as the need for railway cars, and they must be conserved, on account of the rubber shortage, for essential uses. Unnecessary duplicate service must clearly be avoided, and the choice as to the service to retain must depend on which can serve the public better."

Commutation trains in urban and other areas are not included in the survey, the ODT announcement stated. Four of the state commissions have advised the ODT that duplicating services already have been wiped out wherever possible, and all have pledged full cooperation with Mr. Eastman's request.

Would Refuse to Sanction Reduced Coal Rates

Mid-western railroads would be denied authority to establish and maintain rates on bituminous fine coal, in carloads, via all-rail routes from mines in Illinois, Indiana, and western Kentucky, to Minneapolis, St. Paul, Minnesota Transfer, and South St. Paul, Minn., without observing the long-and-short-haul provision of section 4 of the Interstate Commerce Act, if the Interstate Commerce Commission adopts a recommended report of its Examiner Henry B. Armes. The proceeding is docketed as Fourth Section Application No. 18676, Fine Coal to the Twin Cities, and also embraces I. & S. Docket No. 4840, Fine Coal, Illinois, Indiana, and Kentucky to Twin Cities.

The examiner would also have the commission find that the proposed reduced rates (41 cents reduction on the base Southern Illinois group) are in contravention of the provisions of section 4 of the Act, without justification, and are not shown to be free from undue prejudice to other shipping points. As a result of this finding, he would have the suspended schedules canceled and the suspension proceeding discontinued.

The proposals, the examiner points out, are the outcome of efforts of the railroads to attract to their all-rail routes a substantial proportion of the fine coal traffic which now moves to the Twin Cities in large volume from certain mine groups in the southern part of Illinois for a short distance by rail to East St. Louis, Ill., and Alton, and thence by barge for the long water haul of 650 miles up the Mississippi River to Minneapolis and St. Paul.

Asks I. C. C. to Order Removal Of Elevated Tracks

The City of St. Louis, Mo., has recently petitioned the Interstate Commerce Commission to order the Terminal Railroad Association of St. Louis to remove its elevated track on the river front and order the necessary rerouting of trains now using the elevated system over the Municipal bridge across the Mississippi river. Since April, 1941, W. D. Becker, mayor of St. Louis, has endeavored to reach an agreement with the T. R. R. A. concerning the removal of the elevated tracks in accordance with the wishes of Secretary of Interior Harold L. Ickes to improve the river front, which is the site of the Jefferson National Memorial, the beauty of which would be marred unless the elevated tracks are removed. The changes requested by the city, would call for two surface tracks just east of the present elevated line parallel to and within a few feet of the double tracks of the Missouri Pacific and new connecting

tracks to the Municipal bridge on the east side of the river at a total cost of approximately $1,000,000.

On July 10, the city of East St. Louis, Ill., also petitioned the I. C. C. to order the T. R. R. A. to construct and maintain a new Union station at East St. Louis, contending that the present Relay station is antiquated and that its location requires passengers o cross many tracks. Original St. Louis gateway plans prepared by an engineers committee and approved by civic interests and the railroads in 1922, designed to expedite movement of both freight and passenger traffic through the St. Louis gateway, called for new connections to the Municipal bridge at East St. Louis to permit the use of this route by the passenger traffic of all roads approaching St. Louis from the East. Since these connections were completed in 1939, the city of East St. Louis has been urging the T. R. R. A. to construct a new Union station.

N. Y. Bureaucrats Do Political Work for St. Lawrence

A "Committee for the St. Lawrence Project"—of which Gerald V. Cruise, executive secretary of the New York State Power Authority, is chairman—is "flooding the country with propaganda" for the Omnibus Rivers and Harbors Bill (H. R. 5993), according to a speech delivered in the House of Representatives on July 23 by Congressman Alfred F. Beiter of Buffalo, N. Y. The all-inclusive character of this bill was described in *Railway Age* of November 29, 1941, page 924, and analyzed in an editorial in the issue of December 20, 1941, page 1023.

Congressman Beiter, remarking that the House had recognized the untimely nature of the bill under current conditions, and particularly of the St. Lawrence Seaway project which it incorporates, pointed out that Mr. Cruise's "paper" committee—in his opinion a mouthpiece for the New York Power Authority—is directing its "pernicously misleading propaganda" particularly at farmers and labor groups, urging them to adopt "stereotoyped resolutions" demanding that Congress take immediate action on the bill, which has been resting peacefully in the House calendar since its introduction. These inspired resolutions, he said, are being sent to members of Congress, and he voiced a warning against them.

Morgenthau Opposes Freight and Express Tax

Testifying on July 23 before the Senate finance committee which is considering the House-approved tax bill for 1942, Secretary of the Treasury Morgenthau registered his opposition to the tax on freight and express. The tax as approved by the House provides a levy of five per cent on all common and contract freight shipments with the single exception of coal which is taxed at the rate of five cents per ton.

"One tax that would be imposed by the bill before you," declared Mr. Morgenthau, "directly threatens the stability of prices. This is the tax on freight and express which would add to the cost of producing and supplying practically every commodity and service. In great numbers of cases the added cost would make it impossible for businesses to continue to operate under the price ceilings which have been imposed and the breaches in the price ceilings which would thereby be caused would threaten the whole price structure."

Asks Postponement of Power Reverse Gear Order

The Western Pacific has asked the Interstate Commerce Commission to modify its order of February 28, 1938, so as to extend from September 1, 1942, to December 31, 1943, the time within which it must equip all of its locomotives with a suitable type of power-operated reverse gear.

The petition goes on to say that the company has equipped all of its steam locomotives except six Consolidation type steam locomotives used in road service and two steam switching locomotives with power reverse gears. However, it does not plan to have to overhaul the six road locomotives until the latter part of 1943, at which time the power reverse gears could be installed. It is the company's contention that the locomotives are so urgently needed in freight service at the present time that it should not be required to take them out of service to install the power reverse gear.

I. C. C. Issues Service Order No. 81

Division 3 of the Interstate Commerce Commission has issued Service Order No. 81 which directs the Virginian to divert cars loaded with coal consigned to South Amboy, N. J., in sufficient numbers to prevent undue accumulation of cars at Sewalls Point, Va., over the following route:

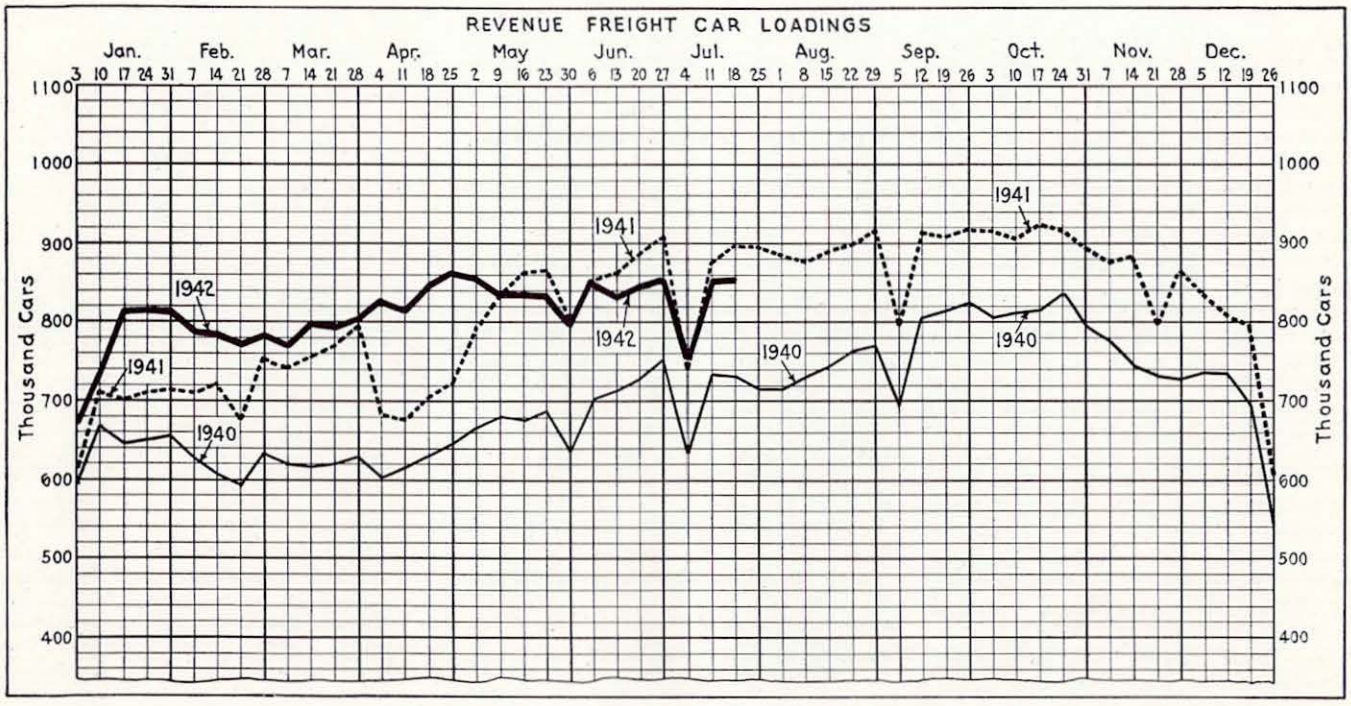
The Virginian to Roanoke, Va.; Norfolk & Western to Hagerstown, Md.; and the Pennsylvania beyond.

The order stated that the Pennsylvania car ferry service between Sewalls Point, Va., and Cape Charles has been partially disrupted; and that there is an undue accumulation at Sewalls Point of cars of coal consigned to South Amboy, N. J. The order will remain in effect until further order of the commission.

Freight Car Loading

Loadings of revenue freight for the week ended July 25 totaled 855,522 cars, the Association of American Railroads announced on July 30. This was a decrease of 1,545 cars, or 0.2 of one per cent below the preceding week, a decrease of 42,042 cars, or 4.7 percent below the corresponding week in 1941, but an increase of 137,484 cars, or 19.1 percent above the same week in 1940.

As reported in last week's issue, loadings



of revenue freight for the week ended July 18 totaled 857,067 cars, and the summary for that week, compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loadings

For Week Ended Saturday, July 18

Districts	1942	1941	1940
Eastern	157,322	190,951	148,905
Allegheny	185,926	198,972	157,583
Pocahontas ...	56,049	59,467	48,134
Southern	118,409	116,807	94,752
Northwestern .	141,979	148,501	124,641
Central Western	127,875	130,413	110,769
Southwestern ..	69,507	54,259	45,676
Total Western Districts	339,361	333,173	281,086
Total All Roads	857,067	899,370	730,460
Commodities			
Grain and grain products	51,558	61,396	53,179
Live stock	9,570	9,414	10,568
Coal	163,557	167,956	120,986
Coke	13,415	13,295	10,416
Forest products.	53,482	44,774	34,315
Ore	92,249	81,289	70,914
Merchandise l.c.l.	87,364	154,680	147,941
Miscellaneous .	385,872	366,566	282,141
July 18	857,067	899,370	730,460
July 11	855,124	876,142	736,783
July 4	753,855	740,359	637,169
June 27	853,441	908,604	752,647
June 20	844,913	885,539	728,493
Cumulative Total, 29 Weeks ..	23,526,051	22,366,603	19,018,947

In Canada.—Carloadings for the week ended July 18 were 64,989, as compared to 66,789 in the previous week and 62,867 in the corresponding week last year, according to the compilation of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
July 18, 1942	64,989	35,546
July 11, 1942	66,789	37,122
July 4, 1942	60,368	37,319
July 19, 1941	62,867	30,401
Cumulative Totals for Canada:		
July 18, 1942	1,831,345	948,509
July 19, 1941	1,676,656	844,706
July 20, 1940	1,466,203	708,456

Railway Business Women Hold Annual Meeting at Chicago

The National Association of Railway Business Women held its annual convention at Chicago on July 25-27. Officers elected for the ensuing year are as follows: President, Bernice Koller, secretary to the assistant general freight agent of the Chicago, Rock Island & Pacific at Chicago; first vice-president, Marie Minshall of the Southern at Cincinnati, Ohio; second vice-president, Mary O'Brien of the Grand Trunk at Detroit, Mich.; third vice-president, Mrs. Christine Humbert of the New York Central at Buffalo, N. Y.; fourth vice-president, Betty Bresnahan of the Great Northern at St. Paul, Minn.; fifth vice-president, Alyce Dunn of the Pere Marquette at Detroit, Mich.; recording secretary, Florence Graydon of the New York Central at Cincinnati; corresponding secretary, Maude Sutton of the Chicago Rock Island & Pacific at Chicago; and treasurer, Mrs. Katherine Wahlen of the Pennsylvania at Buffalo, N. Y.

Cutting Down on Passes

The Office of Defense Transportation's request to the railroads to review pass issuance practice with a view to restricting the free transportation privilege is meeting with an effective response, according to Joseph B. Eastman, ODT Director.

In a report received from J. J. Pelley, president of the Association of American Railroads, it was revealed that eastern and southeastern railroads have decided to limit exchange transportation to one trip per person, per year, after five years of service. Regardless of length of service over five years, the one-trip rule will apply.

The western railroads will allow the employee with from five to ten years of service one exchange pass per year. For ten years and less than fifteen years, two trips per year; fifteen years and less than 20 years, three trips per year; and all over 20 years of service, four exchange trips per year.

The eastern roads, Mr. Eastman said, have agreed to allow passes issued in favor of steamship companies and national park motor companies to expire without renewal, Dec. 31, 1942. The southeastern railroads are investigating the issuance of free transportation to officers of steamship lines with a view to letting such passes expire, or cancelling them altogether.

On the western lines in most cases all requests for trip passes for personal travel must show the reason or necessity for making the trip, it was pointed out. All railroads provide for exceptions to the pass restrictions in the case of furloughed employees in the armed services traveling between point of service and home, and in the case of sickness and death of immediate relatives.

Truck Freight Volume in June Up 8 Per Cent Over 1941

The volume of freight transported by motor carriers in June increased 2.3 per cent over May and 8 per cent over June, 1941, according to reports compiled by the American Trucking Associations. It was the first time in the seven years ATA has been compiling truckloading records that the volume in June exceeded that of May.

Comparable reports were received by ATA from 203 motor carriers in 40 states. The reporting carriers transported an aggregate of 1,533,122 tons in June, as against 1,499,374 tons in May, and 1,419,318 tons in June, 1941. The ATA index figure, computed on the basis of the average monthly tonnage of the reporting carriers for the three-year period of 1938-1940 as representing 100, was 161.68 for June.

Meetings and Conventions

The following list gives names of secretaries, dates of next or regular meetings and places of meetings:

ALLIED RAILWAY SUPPLY ASSOCIATION.—J. F. Gettrust, P. O. Box 5522, Chicago, Ill.

AMERICAN ASSOCIATION OF FREIGHT TRAFFIC OFFICERS.—W. R. Curtis, G. M. & O. R. R., 105 W. Adams St., Chicago, Ill.

AMERICAN ASSOCIATION OF GENERAL BAGGAGE AGENTS.—E. P. Soebbing, 1431 Railway Exchange Bldg., St. Louis, Mo.

AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS.—B. D. Branch, C. R. R. of N. J., 143 Liberty St., New York, N. Y.

AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.—F. O. Whiteman, Room 332, Dearborn Station, Chicago, Ill.

AMERICAN ASSOCIATION OF RAILWAY ADVERTISING AGENTS.—E. A. Abbott, Poole Bros., Inc., 85 W. Harrison St., Chicago, Ill.

AMERICAN ASSOCIATION OF SUPERINTENDENTS OF DINING CARS.—F. R. Borger, C. I. & L. Ry., 836 S. Federal St., Chicago, Ill.

AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.—A. G. Shaver, 310 S. Michigan Ave., Chicago, Ill. Annual meeting, October 13-15, 1942, Hotel Stevens, Chicago, Ill.

AMERICAN RAILWAY CAR INSTITUTE.—W. C. Tabbert, 19 Rector St., New York.

AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.—H. C. Millman, Ind., Agent, Pennsylvania R. R., Union Station, Chicago, Ill. Annual meeting October 19-20, 1942, Palmer House, Chicago, Ill.

AMERICAN RAILWAY ENGINEERING ASSOCIATION.—Works in cooperation with the Association of American Railroads, Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 16-18, 1943, Palmer House, Chicago, Ill.

AMERICAN RAILWAY MAGAZINE EDITORS' ASSOCIATION.—R. H. Bruckert, Kentucky & Indiana Terminal, Louisville, Ky. Annual meeting, October 15-16, 1942, Kentucky Hotel, Louisville, Ky.

AMERICAN SHORT LINE RAILROAD ASSOCIATION.—J. H. Huntt, Tower Bldg., Washington, D. C. Annual meeting, October 8-9, 1942, Atlanta Biltmore Hotel, Atlanta, Ga.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—C. E. Davies, 29 W. 39th St., New York, N. Y. Fall meeting, October 12-14, 1942, Sagamore Hotel, Rochester, N. Y. Annual meeting, November 30-December 4, 1942, Hotel Astor, New York, N. Y.
Railroad Division.—E. L. Woodward, *Railway Mechanical Engineer*, 105 West Adams St., Chicago, Ill.

AMERICAN TRANSIT ASSOCIATION.—Guy C. Hecker, 292 Madison Ave., New York, N. Y. Annual Business Meeting, September 9-11, 1942, Hotel Stevens, Chicago, Ill.

AMERICAN WOOD PRESERVERS' ASSOCIATION.—H. L. Dawson, 1427 Eye St. N. W., Washington, D. C. Annual meeting, April 27-29, 1943, Netherland-Plaza Hotel, Cincinnati, O.

ASSOCIATION OF AMERICAN RAILROADS.—H. J. Forster, Transportation Building, Washington, D. C.
- Operations and Maintenance Department.—Charles H. Buford, Vice-President, Transportation Bldg., Washington, D. C.
  - Operating-Transportation Division. — L. R. Knott, 59 E. Van Buren St., Chicago, Ill.
    - Operating Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.
    - Transportation Section.—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.
    - Fire Protection and Insurance Section.—W. F. Steffens, New York Central, Room 3317, 230 Park Avenue, New York, N. Y.
    - Freight Station Section.—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.
    - Medical and Surgical Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.
    - Protective Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.
    - Safety Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.
    - Telegraph and Telephone Section.—W. A. Fairbanks, 30 Vesey St., New York, N. Y.
  - Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 16-18, 1943, Palmer House, Chicago, Ill.
    - Construction and Maintenance Section.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 16-18, 1943, Palmer House, Chicago, Ill.
    - Electrical Section.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill.
    - Signal Section.—R. H. C. Balliet, 30 Vesey St., New York, N. Y. Annual meeting, October 13-14, 1942, Hotel Stevens, Chicago, Ill.
  - Mechanical Division.—Arthur C. Browning, 59 E. Van Buren St., Chicago, Ill.
  - Electrical Section.—J. A. Andreucetti, 59 E. Van Buren St., Chicago, Ill.
  - Purchases and Stores Division.—W. J. Farrell (Executive Vice-Chairman), Transportation Building, Washington, D. C.
  - Freight Claim Division.—Lewis Pilcher, 59 E. Van Buren St., Chicago, Ill.
  - Motor Transport Division.—George M. Campbell, Transportation Bldg., Washington, D. C.
  - Car-Service Division.—E. W. Coughlin, Transportation Building, Washington, D. C.
- Finance, Accounting, Taxation and Valuation Department.—E. H. Bunnell, Vice-President, Transportation Building, Washington, D. C.
  - Accounting Division.—E. R. Ford, Transportation Building, Washington, D. C.
  - Treasury Division.—E. R. Ford, Transportation Building, Washington, D. C.
- Traffic Department.—A. F. Cleveland, Vice-President, Transportation Building, Washington, D. C.

ASSOCIATION OF RAILWAY CLAIM AGENTS.—F. L. Johnson, Claim Agent, Alton R. R., 340 W. Harrison St., Chicago, Ill.

BRIDGE AND BUILDING SUPPLY MEN'S ASSOCIATION.—P. R. Austin, Johns-Manville Sales Corp., Merchandise Mart, Chicago, Ill. Exhibit in conjunction with convention of the American Railway Bridge & Building Association, October 13-15, 1942, Hotel Stevens, Chicago, Ill.

CANADIAN RAILWAY CLUB.—C. R. Crook, 4415 Marcil Ave., N. D. G., Montreal, Que. Reg-

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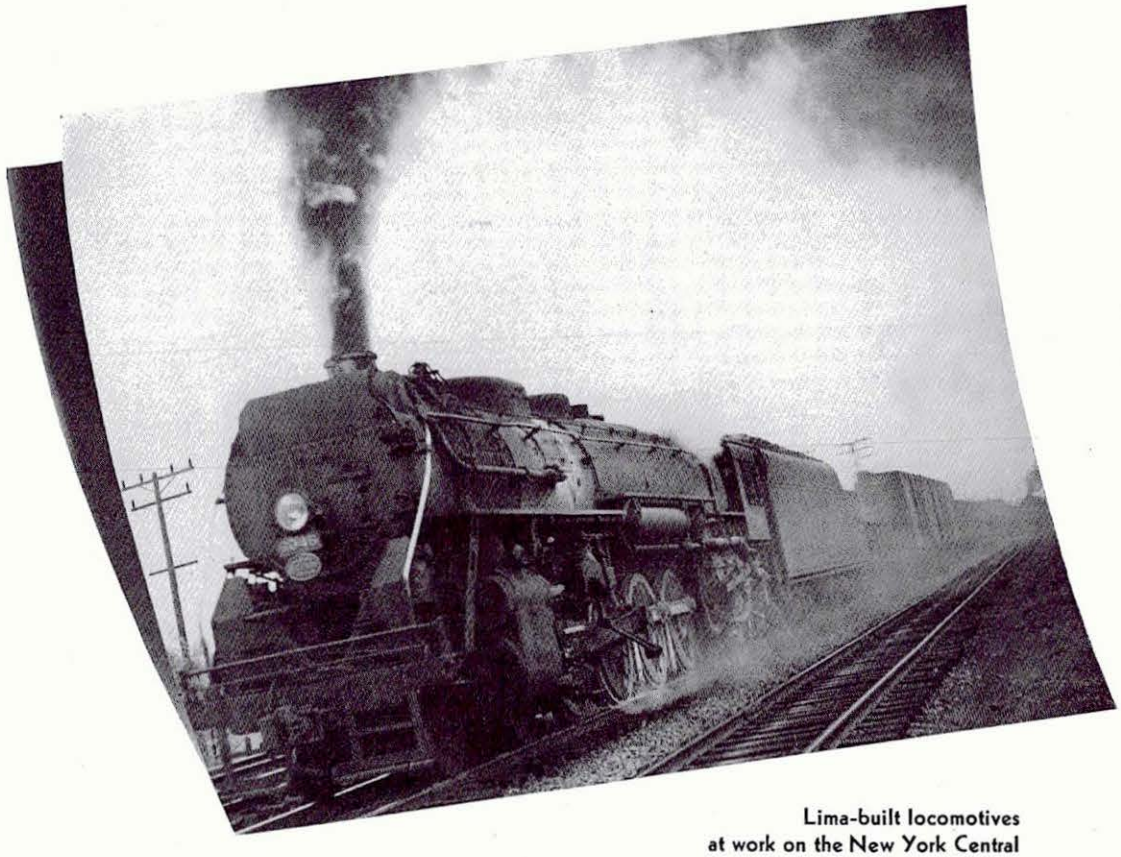
PACKING A YEAR

into 9 months



Lima-built locomotives
at work on the New York Central

According to recent estimates of the Shippers Advisory Boards, the number of freight cars that will have been loaded in the first 9 months of 1942 will be close to the full number loaded in all of 1941. An astonishing record of achievement, and one which was made possible only by organization and operational direction of the highest rank—particularly, when it is recalled that in 1941 the railroads already were drawing from their equipment over 100% more transportation than during World War I.

Modern Lima-built Locomotives are playing an important part in the great advance which has been taking place in railroading. In many cases they have supplied the greater power which made it practicable to move more freight, more miles, in less time than ever before.

LIMA LOCOMOTIVE WORKS LIMA LOCOMOTIVE WORKS INCORPORATED INCORPORATED, LIMA, OHIO

ular meetings, second Monday of each month except June, July and August, Windsor Hotel, Montreal, Que.

CAR DEPARTMENT ASSOCIATION OF ST. LOUIS, MO.—J. J. Sheehan, 1101 Missouri Pacific Bldg., St. Louis, Mo. Regular meetings, third Tuesday of each month, except June, July and August, Hotel De Soto, St. Louis, Mo.

CAR DEPARTMENT OFFICERS' ASSOCIATION.—Frank Kartheiser, Chief Clerk, Mechanical Dept., C. B. & Q., Chicago, Ill.

CAR FOREMEN'S ASSOCIATION OF CHICAGO.—G. K. Oliver, 8238 S. Campbell Ave., Chicago, Ill. Regular meetings, second Monday of each month, except June, July and August, La Salle Hotel, Chicago, Ill.

CENTRAL RAILWAY CLUB OF BUFFALO.—Mrs. M. D. Reed, 1840-42 Hotel Statler, McKinley Square, Buffalo, N. Y. Regular meetings, second Thursday of each month except June, July and August, Hotel Statler, Buffalo, N. Y.

EASTERN ASSOCIATION OF CAR SERVICE OFFICERS.—J. T. Bougher, 424 W. 33rd St. (11th floor), New York, N. Y.

EASTERN CAR FOREMAN'S ASSOCIATION.—W. P. Dizard, 30 Church St., New York, N. Y. Regular meetings, second Friday of January, March, April, May, October and November, 29 W. 39th St., New York, N. Y.

LOCOMOTIVE MAINTENANCE OFFICERS' ASSOCIATION.—C. M. Lipscomb, 1721 Parker Street, No. Little Rock, Ark.

MASTER BOILER MAKERS' ASSOCIATION.—A. F. Stiglmeier, 29 Parkwood St., Albany, N. Y.

NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.—Ben Smart, 7413 New Post Office Bldg., Washington, D. C. Annual meeting, November, 1942, Dallas, Tex.

NATIONAL RAILWAY APPLIANCES ASSOCIATION.—C. H. White, Room 1826, 208 S. La Salle St., Chicago, Ill.

NEW ENGLAND RAILROAD CLUB.—W. E. Cade, Jr., 683 Atlantic Ave., Boston, Mass. Regular meetings, second Tuesday of each month, except June, July, August and September, Hotel Touraine, Boston, Mass.

NEW YORK RAILROAD CLUB.—D. W. Pye, 30 Church St., New York, N. Y. Regular meetings, third Thursday of each month, except June, July, August, September, and December, 29 W. 39th St., New York, N. Y.

PACIFIC RAILWAY CLUB.—William S. Wollner, P. O. Box A, Sausalito, Cal. Regular meetings, second Thursday of each alternate month, at Palace Hotel, San Francisco, Cal., and Hotel Hayward, Los Angeles, Cal.

RAILWAY BUSINESS ASSOCIATION.—P. H. Middleton, First National Bank Bldg., Chicago, Ill. Annual meeting, November, 1942.

RAILWAY CLUB OF PITTSBURGH.—J. D. Conway, 1647 Oliver Bldg., Pittsburgh, Pa. Regular meetings, fourth Thursday of each month, except June, July and August, Fort Pitt Hotel, Pittsburgh, Pa.

RAILWAY ELECTRIC SUPPLY MANUFACTURERS' ASSOCIATION.—J. McC. Price, Allen-Bradley Company, 624 W. Adams St., Chicago, Ill.

RAILWAY FUEL AND TRAVELING ENGINEERS' ASSOCIATION.—T. Duff Smith, Room 811, Utilities Bldg., 327 S. La Salle St., Chicago, Ill.

RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.—J. D. Conway, 1647 Oliver Bldg., Pittsburgh, Pa.

RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with Telegraph and Telephone Section of A. A. R.

RAILWAY TIE ASSOCIATION.—Roy M. Edmonds, 903 Syndicate Trust Bldg., St. Louis, Mo.

ROADMASTERS' AND MAINTENANCE OF WAY ASSOCIATION.—A. G. Shaver, 310 S. Michigan Ave., Chicago, Ill. Annual meeting, September 15-17, 1942, Hotel Stevens, Chicago, Ill.

SIGNAL APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with A. A. R. Signal Section.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.—A. T. Miller, 4 Hunter St., S. E., Atlanta, Ga. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta, Ga.

SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS.—D. W. Brantley, C. of Ga. Ry., Savannah, Ga.

TORONTO RAILWAY CLUB.—D. M. George, P. O. Box 8, Terminal "A," Toronto, Ont. Regular meetings, fourth Monday of each month, except June, July and August, Royal York Hotel, Toronto, Ont.

TRACK SUPPLY ASSOCIATION.—Lewis Thomas, Q. and C. Company, 59 E. Van Buren St., Chicago, Ill. Exhibit in conjunction with Roadmasters' and Maintenance of Way Association Convention, September 14-17, 1942, Hotel Stevens, Chicago, Ill.

UNITED ASSOCIATIONS OF RAILROAD VETERANS.—Roy E. Collins, 12 Hatfield Place, Port Richmond, Staten Island, N. Y. Annual meeting, October 10-11, 1942, Baltimore, Md.

WESTERN RAILWAY CLUB.—E. E. Thulin (Executive Secretary) 122 S. Michigan Ave., Chicago, Ill. Regular meetings, third Monday of each month, except January, June, July, August and September, Hotel Sherman, Chicago, Ill.

Equipment and Supplies

LOCOMOTIVES

An inquiry is reported in the market for three steam locomotives of 2-10-2 wheel arrangement for export to Bolivia.

SIGNALING

THE LIMA LOCOMOTIVE WORKS has placed an order with the General Railway Signal Company for 25 intermittent inductive auto-manual train control engine equipments for locomotives that are being built for the New York Central.

THE ELECTRO MOTIVE DIVISION OF GENERAL MOTORS CORPORATION has placed an order with the General Railway Signal Company for four intermittent inductive auto-manual train control engine equipments for Diesel electric locomotives that are being built for the Southern.

THE LOUISVILLE & NASHVILLE has placed an order with the General Railway Signal Company covering materials for a two-wire coded centralized traffic control installation between Winchester, Ky. and Irvine, comprising 23.6 miles of single track. The control machine, which has 16 working levers for the control of 6 switches and 33 signals is to be located at Ravenna, Ky. Besides the control machine, the order calls for coded apparatus, 6 Model-2A semaphore signals, 6 Type-F dwarf signals, 6 Type-SA dwarf signals, 6 Model-5D dual-control switch machines, seven 6 ft. by 6 ft. welded-steel housings, instrument cases, Type-K relays, rectifiers, and transformers; also relays and transmitters for coded track circuits. The cases and housings are to be factory wired and tested before shipment.

Pennsylvania Lists Equipment "Frozen" by WPB

The Pennsylvania has proposed an equipment trust substitution to the holders of series M 2⅜ per cent certificates due January 1, 1943-1957, because of the impossibility, by reason of restrictions imposed by the War Production Board, of obtaining part of the equipment. The original equipment, estimated to cost $23,098,200, as described in the lease, was to consist of the following: 2,000 steel box cars; 2,700 steel hopper cars; 1,000 steel mill-type gondola cars; 300 steel covered hopper cars; 10 steel heavy duty flat cars; 10 steel heavy duty well cars; 50 steel cabooses; 12 steel locomotive tenders and 15 electric passenger locomotives.

Of the foregoing, construction was stopped by orders of the WPB on the following: 1,107 box cars; 1,989 hopper cars; 1,000 gondola cars; 300 covered hopper cars and 50 cabooses. The railroad proposes to substitute, in place of the equipment that cannot be acquired, other new rolling stock which may be obtainable either from outside manufacturers or through construction in the company's own shops. The substituted equipment will consist of new freight locomotives (steam or electric) and tenders; switching locomotives (steam, electric or Diesel-electric); passenger locomotives (electric or steam); gondola cars, hopper cars, flat cars, box cars or cabooses of types which will be of general utility.

WPB "Releases" Additional Freight Cars

The War Production Board's Transportation Equipment branch has issued releases for the building of the 500 covered hopper cars and 411 of the tank cars included in the final 18,000 freight car program authorized for 1942 construction. Of the 500 covered hopper cars, all of which are scheduled for the Shippers Car Line, 400 will be built by the American Car & Foundry Co., 50 by the Mount Vernon Car Manufacturing Company and 50 in the Chicago, Burlington & Quincy's shops.

Tank cars released include 100 for the Union Tank Car Company and 27 for the Frontenac Pipe Line Company, to be built by the American Car & Foundry Co., and 284 to be built by the General American Transportation Corporation for its own use. This is reported to bring to 1,111 the number of tank cars so far released, of which total number 639 will be constructed by the American Car & Foundry Co., and 472 by the General American Transportation Corporation. General American is also reported to be building 59 special-type box cars for oxygen tanks.

With these latest releases, about 15,200 of the 18,000 cars have now been allocated. Distribution of 13,525 of the cars in the program, divided according to railroads and builders, was set forth in the *Railway Age* of June 20, page 1222, and details as to the status of the car building program as of July 1, 1942, was shown in the *Railway Age* of July 25, page 154.

Supply Trade

A. Van Hassel, president of the Magor Car Corporation of New York, has been elected vice-president and director of the **National Steel Car Corporation, Ltd.,** of Canada.

John Pugsley, comptroller of the **National Tube Company,** has been appointed comptroller of the **Tennessee Coal, Iron & Railroad Company,** Birmingham, Ala., to succeed **Neill Hutchings,** retired.

William H. Shipley, chairman of the board of the **York Ice Machinery Corporation,** York, Pa., has been appointed director and vice-chairman of the War Production Board's Small War Plants Corporation.

E. Jack Frederick, formerly traffic and export manager for the Bettendorf Company, Bettendorf, Iowa, has become associated in a similar capacity with **Aage B. Nilsen** of New York, eastern representative of several railway equipment manufacturers. The firm has exclusive export arrangements with the Chicago Railway Equipment Company; the Superior Car

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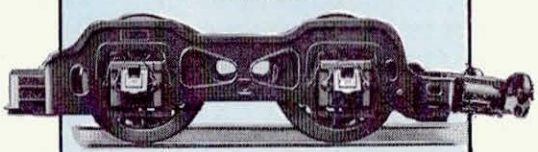
"... the war load has fallen almost in its entirety on the railroads. Now the load on the railroads is in excess of anything in their history; and, with the gradual passing of waterway, highway and airway transportation, the peak load prospects of the railroads appear far in excess of any peak load ever anticipated."

M. W. Clement, President
Pennsylvania Railroad
Address delivered June 15th at
dedication of new Technological
Institute, Northwestern University.

The FRANKLIN SYSTEM of Steam Distribution AND THE LOCOMOTIVE BOOSTER



*Trade Mark Registered U. S. Pat. Off.

With locomotive builders almost wholly engaged in the production of vital war material, only the very minimum amount of new power can be expected by the railroads to help them carry these unprecedented tonnages. The logical solution is increased capacity of existing power.

The Franklin System of Steam Distribution, through increased mean effective pressure, provides at least a third extra train load-speed capacity. The Locomotive Booster* aids materially in starting heavier loads and accelerating to road speeds.

This combination for existing locomotives will provide increased capacity throughout the entire operating range.

FRANKLIN RAILWAY SUPPLY COMPANY, INC. NEW YORK CHICAGO

In Canada: FRANKLIN RAILWAY SUPPLY COMPANY, LIMITED, MONTREAL

Door Company; the Klasing Car Brake Company; and the Aurora Pump Company. Other lines are in process of being added to round out a complete service to railroads in foreign countries.

John Carr, formerly president of the York-Shipley Company, Shanghai, China, has been appointed export sales manager of the **York Ice Machinery Corporation,** to succeed James C. Tweedell, who was recently named general sales manager for the company.

Construction

CHESAPEAKE & OHIO.—Division 4 of the Interstate Commerce Commission has ordered in Finance Docket No. 12360 that the time within which this company shall complete the construction of a line of railroad in Logan and Wyoming Counties, W. Va., shall be extended from August 1, 1942, to August 1, 1944.

ERIE.—The Pennsylvania Public Utility Commission has approved plans calling for the construction of a grade crossing where a proposed industrial sidetrack of the Erie, to serve the Keystone Ordnance Plant, will cross East Fallowfield township highway route No. 20389, about 30 ft. west of an existing grade crossing where the main line of the Erie crosses the highway. Total cost of the project is estimated at $24,980.

LEHIGH VALLEY.—This company has awarded contracts for the grading of property so as to render it suitable for the storage of material at South Plainfield, N. J., at estimated cost of $65,000, to J. F. Chapman & Son, Inc., Hillside, N. J., and for the installation of water lines on the storage property, at estimated cost of $31,000, to the Middlesex Water Company of Woodbridge, N. J.

MISSOURI-KANSAS-TEXAS.—The U. S. Engineer Office, Denison, Tex., has awarded a contract to the M-K-T for the construction, operation and maintenance of a spur track to an air force station in Texas.

NEW YORK CENTRAL.—This company has awarded a contract for dredging between bridge No. 6 and pier No. 11-A at Weehawken, N. J., to the Henry DuBois' Sons Company of New York.

NEW YORK CENTRAL.—The New York State Public Service Commission has ordered the New York Central to construct a new passenger and baggage station at Dunkirk, N. Y. The Commission directed that construction be carried out at the railroad's sole expense at a proper location to meet the needs of the public, and that the railroad submit to the Commission for its approval plans and specifications for the new station on or before September 1, 1942.

NEW YORK, CHICAGO & ST. LOUIS.—The Nickel Plate is improving and enlarging an old storage yard at Conneaut, Ohio, by extending nine stub-end tracks and connecting them to a new switching lead at the west end and rebuilding the existing lead at the east end. Running tracks are also being relocated to provide increased flexibility of operation. The total yard capacity will be increased from 1,214 to 1,747 cars by the improvements.

ST. LOUIS-SAN FRANCISCO.—The U. S. Engineer Office, Memphis, Tenn., has awarded two contracts for track construction to the Frisco, one for the construction of a railroad at a basic flying school in Arkansas, and the other for track construction at an airfield project in Tennessee.

SOUTHERN PACIFIC.—A contract has been awarded the Hyman-Michaels Company, Chicago, for the removal of approximately 120 miles of the old main line north of Great Salt lake between Corrinne, Utah, and Lucin, which includes the trackage at Promontory, Utah, where the central Pacific (now the Southern Pacific) and the Union Pacific were joined on May 10, 1869, by driving the "golden spike," to complete the first rail route to the Pacific. The rails from this line have been requisitioned by the Navy.

Financial

ARKANSAS VALLEY. — *Abandonment.* — This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon its entire line of railroad, consisting of a main line extending from Wichita, Kans., to Hutchinson, and its Newton branch extending from Van Arsdale, Kans., to Newton, 60 miles.

BANGOR & AROOSTOOK.—*Bonds.*—This company has asked the Interstate Commerce Commission for authority to issue $8,000,000 of consolidated refunding mortgage four per cent bonds and to pledge the bonds with the Guaranty Trust Company of New York City as collateral security for an issue of $4,000,000 of collateral trust notes or collateral trust bonds. The proceeds of the notes will be used to refund or refinance $4,000,000 of outstanding securities consisting of $3,091,000 of first mortgage five per cent bonds; $703,000 of Piscataquis Division five per cent mortgage bonds; and $206,000 of Van Buren Extension first mortgage bonds, all the bonds being or becoming due January 1, 1943. The trust notes will bear interest at the rate of four per cent, will be dated January 1, 1943, and will mature July 1, 1951.

BOSTON & MAINE.—*Acquisition.*—This company has asked the Interstate Commerce Commission for authority to acquire the property of the Franklin & Tilton extending from Tilton, N. H., to Franklin Junction, five miles.

CENTRAL OF GEORGIA.—*Compensation of Trustee.*—Merrel P. Callaway, trustee of this company during reorganization proceedings under section 77 of the Bankruptcy Act, has asked the Interstate Commerce Commission to reconsider its recent decision in which it fixed his maximum salary at the rate of $20,000 a year. In his petition, Mr. Callaway points out that his duties are many and varied and that his predecessors were paid a considerably higher salary than the commission has fixed for him.

CHICAGO & EASTERN ILLINOIS.—*Abandonment.*—This company has been denied authority by Division 4 of the Interstate Commerce Commission to abandon its Freeland Park branch extending in an easterly direction from a connection with the main line at Milford Junction, Ill., to the end of the end of the branch at Freeland Park, Ind., 10.7 miles.

Division 4 found that although the traffic handled on the branch during the last five years declined in 1940 and 1941, branch operations, in the aggregate, have been profitable, and the record indicates that there will be an increase in traffic in the future.

CHICAGO, ROCK ISLAND & PACIFIC.—*Abandonment.*—This company would be authorized to abandon a branch line extending from Atlantic, Iowa, southwesterly to Griswold, 14.7 miles, if Division 4 of the Interstate Commerce Commission adopts a recommended report of its Examiner Lucian Jordan.

ERIE.—*Abandonment.*—This company has been denied authority by Division 4 of the Interstate Commerce Commission to abandon (1) a line extending northwesterly from Painted Post, N. Y., to Avon, 73 miles; and (2) a branch line extending southwesterly from a connection with this line at Conesus Lake Junction, N. Y., to Lakeville, 1.5 miles. Division 4 found that the facts of the record in the case "do not support the conclusion that continued operation of the line would impose an undue burden upon the applicant or upon interstate commerce."

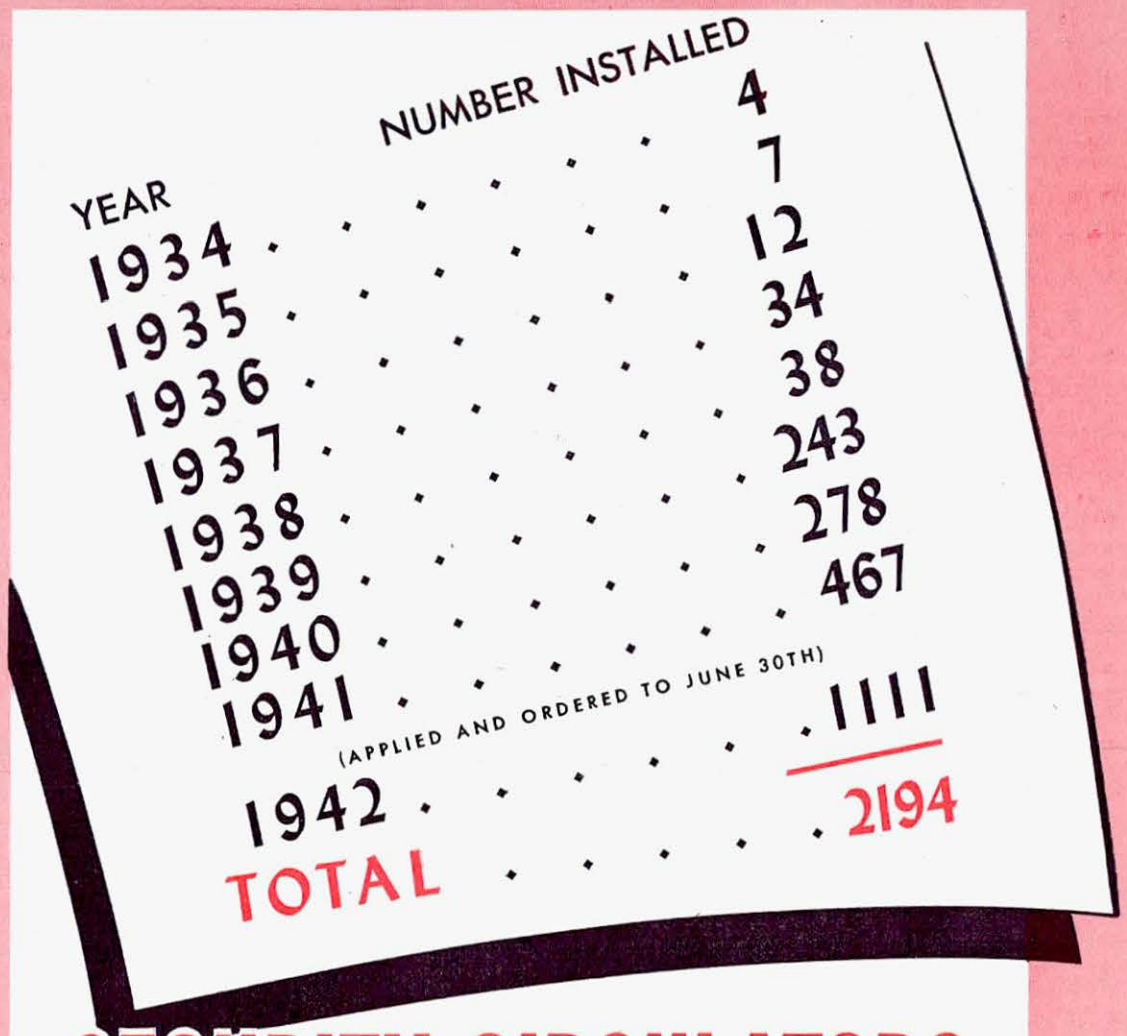
Commissioner Mahaffie wrote a short dissent, saying that he felt that the authority to abandon the line should be granted. "The efficient use of our public transportation facilities," he declared, "is always a matter of prime public concern. Under present conditions it is vital. The continued maintenance and operation of a duplicating line of railroad is not an efficient use of transportation facilities. In view of the present national requirements for men and materials we should look beyond the mere computation of profit or loss on the line itself and consider the wider public interest. Doing that, in my opinion, requires that this application be granted."

Commissioner Miller concurred in the majority report, but said that he felt the Erie should give consideration to abandoning only that portion of the line from Painted Post, N. Y., to Wayland.

GREAT NORTHERN.—*Abandonment.*—This company has asked the Interstate Commerce Commission for authority to renew its application of July 17, 1939, in which it sought permission to abandon a line extending from St. Hilaire, Minn., to Wylie, 7.3 miles. The application was dismissed by Division 4 on December 16, 1939, at the company's request, after an examiner had recommended against the granting of the abandonment. The company points out that conditions have changed since the outbreak

News Department continued on next left-hand page

Progress Report



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AMERICAN ARCH COMPANY, INC.

Security Circulator Division

NEW YORK CHICAGO

of war and that the War Production Board has called upon it to furnish as much used rail as it possibly can. Because of the constant decrease in traffic, the company feels that the rail in the line can be used more advantageously in the war effort.

LOUISVILLE & NASHVILLE.—*Abandonment.*—This company has asked the Interstate Commerce Commission for authority to abandon a part of its Swan Creek branch extending from a point one mile west of Swan Creek Junction, Tenn., to Gordonsburg, 15 miles.

LOUISVILLE & NASHVILLE.—*Abandonment.*—This company has been granted authority by Division 4 of the Interstate Commerce Commission to abandon a part of a branch line extending from North Winchester, Ky., to Fincastle, 47.2 miles, but has been denied authority to abandon the remainder of the branch from Fincastle, Ky., to Maloney, 5.8 miles.

MINNEAPOLIS & ST. LOUIS.—*Bid for Property Submitted.*—The minimum price of $2,010,000 fixed by the federal court for the property and assets of the Minneapolis & St. Louis was bid by the reorganization managers of the railroad at an auction held at Minneapolis, Minn., on July 24. A final hearing on the sale and reorganization program will be held on August 21, the required 28 days after the bid entry, to afford minority bond holders an opportunity to present objections prior to the district court's approval of the sale. The reorganization plan has already been approved by the Interstate Commerce Commission, the Reconstruction Finance Corporation and a majority of stockholders and preferred creditors. The plan contemplates two new companies to operate the 1,500-mile system. One, the Minneapolis & St. Louis Railway, would take over lines east and south of Minneapolis, and the other, the Minneapolis & St. Louis Railroad, would operate the lines west of Minneapolis, and the Winthrop, Minn.-Ft. Dodge, Iowa, line. The auction of July 24 was the forty-third attempt to sell the railroad which has been in receivership since July 26, 1923.

NASHVILLE, CHATTANOOGA & ST. LOUIS.—*Abandonment.*—This company has been granted authority by Division 4 of the Interstate Commerce Commission to abandon its Orme branch extending northwesterly from near Bridgeport, Ala., to the end of the branch at Orme, Tenn., 10.4 miles.

PENNSYLVANIA.—*Abandonment by the Pennsylvania, Ohio & Detroit.*—The Pennsylvania, Ohio & Detroit and the Pennsylvania, respectively, have been authorized by Division 4 of the Interstate Commerce Commission to abandon a portion of the Walhonding branch and the operation thereof extending from a connection with the main line at Coshocton, Ohio, to Warsaw Junction, 8.9 miles.

PENNSYLVANIA.—*Equipment Trust Certificates.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to substitute certain equipment for other equipment authorized in Finance Docket No. 13567, construction of which was stopped because of War Production Board orders. Details of the equipment originally authorized and that to be substituted were given in the *Railway Age* of July 18, page 120.

PENNSYLVANIA.—*Lease.*—This company has asked the Interstate Commerce Commission for authority to lease a portion of the right-of-way of the New Cumberland & Pittsburgh extending from a point on the Pennsylvania-West Virginia boundary at Chester, W. Va., to Raccoon Creek, Pa., 10.5 miles.

ST. LOUIS-SAN FRANCISCO-KANSAS CITY SOUTHERN.—*Abandonment.*—These companies have asked the Interstate Commerce Commission for authority to abandon interchange tracks connecting their lines at Gulfton, Mo., 1,353 ft.

TEXAS MEXICAN.—*Operation.*—Division 4 of the Interstate Commerce Commission has extended from August 29, 1942, to March 1, 1943, the time within which this company shall operate a line of railroad constructed by the federal government in Nueces County, Tex.

UNADILLA VALLEY.—*Trackage Rights.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to acquire trackage rights over that portion of the line of the New York, Ontario & Western extending from the point of connection at New Berlin Junction, N. Y., to Sidney, 3.1 miles.

UNION PACIFIC.—*Abandonment by the St. Joseph & Grand Island.*—The St. Joseph & Grand Island and the Union Pacific, respectively, have been denied authority to abandon a branch line and the operation thereof extending from Stout, Kans., to Highland, 6.8 miles. Division 4 found that "the tributary territory has sufficient traffic to support rail transportation service; that there is likely to be a substantial increase in the volume of traffic in the future; and that there is sufficient public need for the branch to warrant its retention, especially during the period of the war emergency."

WILMINGTON, BRUNSWICK & SOUTHERN.—*R. F. C. Loan.*—This company has asked the Interstate Commerce Commission to approve a plan whereby it will borrow $140,000 from the Reconstruction Finance Corporation, the proceeds to be used to repair track, bridges, and a locomotive.

Average Prices Stocks and Bonds

	July 28	Last week	Last year
Average price of 20 representative railway stocks..	26.75	26.48	30.92
Average price of 20 representative railway bonds..	64.66	64.35	65.71

Dividends Declared

Chattahoochee & Gulf.—Irregular, $1.40, payable July 23 to holders of record July 18.

Erie & Kalamazoo.—Irregular, $1.50, payable August 1 to holders of record July 25.

Michigan Central.—$25, semi-annually, payable July 31 to holders of record July 21.

Oswego & Syracuse.—$2.25, semi-annually, payable August 20 to holders of record August 7.

Passaic & Delaware.—$1.24, semi-annually, payable August 1 to holders of record July 24.

Piedmont & Northern.—50¢, quarterly, payable July 20 to holders of record July 6.

Syracuse, Binghamton & New York.—$3, quarterly, payable August 1 to holders of record July 24.

Wabash.—Preferred (special), $4.50, representing the equivalent of a full year's dividend.

Railway Officers

EXECUTIVE

William J. Hogan, general manager of the Grand Trunk Western, with headquarters at Detroit, Mich., has been elected also president of the Detroit Terminal Railroad and **Walter H. Edmondson,** general superintendent of the Grand Trunk Western, has been elected also a director of the Detroit Terminal.

OPERATING

J. J. Drury, system supervisor of wage agreements of the Atchison, Topeka & Santa Fe, with headquarters at Chicago, has been promoted to manager of personnel, with the same headquarters, succeeding **L. D. Comer,** whose appointment as assistant to the general manager of the Coast lines at Los Angeles, Cal., was reported in the *Railway Age* of July 25.

Henry H. Tisdale, whose promotion to assistant general manager of the Coast lines of the Atchison, Topeka & Santa Fe, with

Henry H. Tisdale

headquarters at Los Angeles, Cal., was reported in the *Railway Age* of July 25, was born at St. Paul, Minn., on April 28, 1884, and entered railway service in July, 1903, as a freight handler at the Hamline Transfer (Minn.) of the Great Northern. In November of the same year Mr. Tisdale was transferred to the general superintendent's office at St. Paul, advancing through various clerical positions to that of secretary to the general superintendent. Later he served in the same capacity in the office of the general superintendent of transportation at St. Paul and in the office of the general superintendent at Minot, N. D. In April, 1909, Mr. Tisdale went with the Santa Fe, where he served in the office of the general superintendent at Los Angeles, Cal., until July, 1918, when he was promoted to trainmaster on the Arizona division. He was transferred successively to the Albuquerque, Valley and Los Angeles

News Department continued on next left-hand page

Fuel Economy

Is A War-Time Objective

and the correct maintenance of Elesco capacity and fuel saving equipment is a definite step in the direction of sustained economy.

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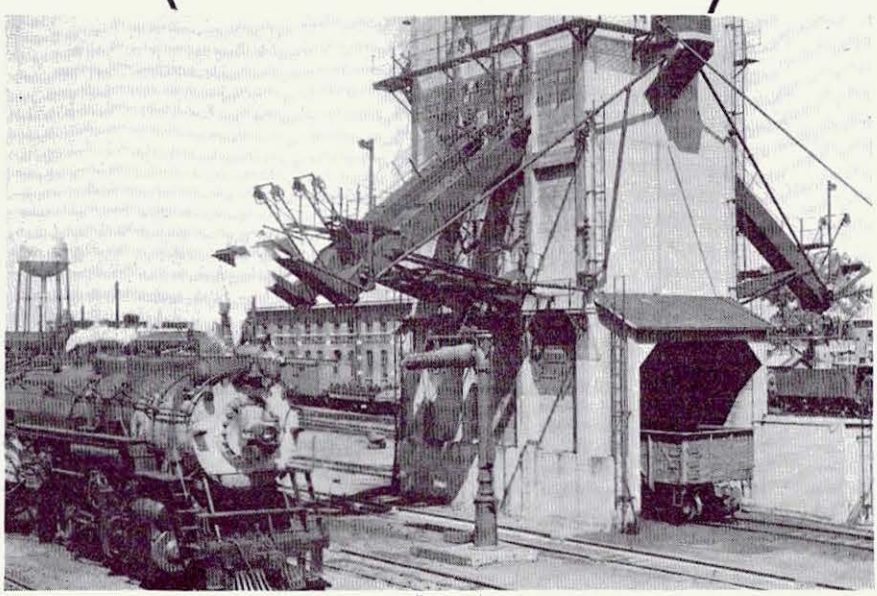

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divisions, and in January, 1934, he was advanced to superintendent of the Arizona division, with headquarters at Needles, Cal. In January, 1939, Mr. Tisdale was appointed assistant to the general manager of the Coast lines in charge of personnel, with headquarters at Los Angeles, which position he held until his recent promotion.

R. W. Prentice, acting superintendent of the Panhandle division of the Atchison, Topeka & Santa Fe, with headquarters at Wellington, Kan., has been appointed superintendent. **W. H. Jones,** acting trainmaster at La Junta, Colo., has been appointed trainmaster. **J. D. Raymond,** acting trainmaster of the Panhandle & Santa Fe at San Angelo, Tex., has been appointed trainmaster and **R. D. Shelton,** acting trainmaster of the P. & S. F. at Amarillo, Tex., has been appointed trainmaster at that point.

Roy D. Clousing, whose promotion to superintendent of the Chicago Terminal division of the Atchison, Topeka & Santa Fe, with headquarters at Chicago, was reported in the *Railway Age* of July 25, was born at Lyndon, Kan., on August 8, 1900, and attended business college in 1918. He

Roy D. Clousing

entered railway service on February 4, 1919, as a clerk in the office of the Interline department freight auditor at Topeka, Kan., later serving as claim clerk in the Interline department. On May 10, 1920, he was transferred to Pueblo, Colo., as statement clerk in the agent's office, later serving as maintenance clerk at that point. Mr. Clousing resigned on September 27, 1925, but returned to the Santa Fe on June 1, 1926, as assistant statistician in the office of the general manager at Topeka and on September 11, 1933, he was appointed secretary to the assistant general manager. On April 1, 1937, he was advanced to secretary to the general manager and on October 1, 1938, he was appointed transportation inspector at Topeka. Mr. Clousing was promoted to general transportation inspector, with the same headquarters, on July 1, 1939, and on October 10, 1941, he was promoted to night trainmaster of the Chicago Terminal division, which position he held until his recent promotion, effective July 18.

ENGINEERING & SIGNALING

John E. Roumillat, who has been in the employ of the Southeastern Express Company and the Railway Express Agency since 1925, has been appointed assistant engineer in the general merchandise division of the Freight Container Bureau of the Association of American Railroads, with headquarters at New York.

Frank J. Meyer, roadmaster of the New York, Ontario & Western, has been promoted to chief engineer, with headquarters as before at Middletown, N. Y., succeeding **W. C. Heidenthal,** who has been appointed engineering consultant to the trustee. Mr. Heidenthal was born at Port Jervis, N. Y., on August 27, 1878, and after experience in railroad location and construction, he entered the engineering department of the New York Central in its double tracking operations. In March, 1905, he joined the engineering department of the New York, Ontario & Western and served as assistant engineer. On March 4, 1907, he was appointed roadmaster in charge of maintenance and double tracking on the Scranton division and in September, 1916, he was promoted to engineer maintenance of way. He became chief engineer on April 4, 1937, which position he held until his recent appointment as engineering consultant to the trustee.

J. S. Webb, assistant superintendent signals of the Atlantic Coast Line, with headquarters at Wilmington, N. C., has been appointed signal engineer, succeeding to the duties previously assigned to **C. J. Kelloway,** superintendent of signals, who has retired after 35 years of service with this road.

Mr. Kelloway was born at Hamilton, N. Y., on February 27, 1873, and began his career as a mechanic with the Johnson Railroad Signal Company on January 2, 1891, which position he held until September 1, 1894, when he entered railroad service as signal foreman, construction and maintenance, Delaware, Lackawanna & Western. In 1898 he became general signal foreman and in 1902 he was appointed supervisor of interlocking of the Lackawanna. Mr. Kelloway was appointed signal engineer in charge of design, construction and maintenance of the Atlantic Coast Line on November 16, 1906, becoming superintendent of signals in charge of design, construction and maintenance on January 1, 1919, which position he held until his retirement.

Carl Djuvik, supervisor of bridges and buildings of the Tennessee Central, with headquarters at Nashville, Tenn., has been promoted to engineer of bridges and buildings, effective July 16, with the same headquarters. Mr. Djuvik was born on October 6, 1905, at Bergen, Norway, and attended college in that country. Subsequently, Mr. Djuvik came to the United States and continued studies in architecture and design while employed as a carpenter on the Wyoming division of the Chicago & North Western in 1924. Subsequently, he served on this road as a pile driver engineer, crawler crane operator and assistant bridge and building foreman. In 1928, he was promoted to bridge and building foreman. During 1936, Mr. Djuvik served as a construction foreman with the United States Reclamation Service and as construction superintendent on a project involving a line change on the Chicago, Burlington & Quincy at Chariton, Iowa. In 1937, he accepted a position with the Tennessee Central as assistant supervisor of bridges and buildings at Nashville, leaving this road in 1938 to serve as an instrumentman in the United States Engineer's office. In 1939, he returned to the Tennessee Central as supervisor of buildings in charge of new construction, being appointed supervisor of bridges and buildings in May, 1942. He was holding the latter position at the time of his recent appointment as engineer of bridges and buildings.

TRAFFIC

Joseph A. Van Wie, coal freight agent of the New York, Ontario & Western, with headquarters at Scranton, Pa., has been promoted to coal traffic manager, with headquarters at New York, continuing supervision of the Scranton office. Mr. Van

Joseph A. Van Wie

Wie entered railroad service in the operating department of the Morris and Essex division of the Delaware, Lackawanna & Western in March, 1934, subsequently entering the passenger department of the Atlantic Coast Line at New York. Mr. Van Wie went with the New York, Ontario & Western as coal traffic representative on February 15, 1938, and was appointed coal freight agent on December 1, 1938, which position he held until his recent appointment.

Justin J. Nolan, whose promotion to general passenger agent of the Pullman Company, with headquarters at Chicago, was reported in the *Railway Age* of July 25, was born at Hartland, Ill., on April 19, 1898, and served in the U. S. Army during World War I. Upon his return he became connected with a commercial house in Chicago and a few months later, on August 18, 1919, he went with the Pullman Company as an audit clerk in the commissary department. A short time later, Mr. Nolan was transferred to the passenger department and during the next six years he

broadened his experience by winter ticket selling in Southern resorts, becoming district passenger agent out of Chicago on June 16, 1925. On January 1, 1937, he was promoted to assistant general passenger

Justin J. Nolan

agent, which position he held until his recent promotion.

Denis F. McCarthy, general freight agent of the New York, Ontario & Western, with headquarters at New York, has been promoted to assistant freight traffic manager, with the same headquarters. Mr. McCarthy was born at Jersey City, N. J., on February 11, 1887, and began his railroad career with the Erie on September 1, 1902. On July 1, 1907, he entered the service of the New York, Ontario & Western as rate revision clerk in the office of the auditor of revenues and later became chief clerk of that office. Mr. McCarthy was appointed assistant general freight agent on January 1, 1938, and on Novem-

Denis F. McCarthy

ber 1, 1941, he became general freight agent, which position he held until his recent promotion to assistant freight traffic manager.

Ralph E. Wright, assistant general freight agent of the New York, Ontario & Western, has been promoted to general freight agent, with headquarters at New York. Mr. Wright was born at Livingston Manor, N. Y., on March 1, 1891, and entered railroad service as helper on the New York, Ontario & Western at Rock Rift, N. Y., on June 27, 1908. He subsequently entered the telegraph service and worked as extra operator at practically all stations on the Southern division. He was telegrapher at Livingston Manor for 22 years and was appointed agent at Port Jervis, N. Y., in August, 1930. On December 1, 1938, he was appointed district freight agent, becoming assistant general freight agent on January 1, 1941.

Ralph E. Wright

William C. Richardson, commercial agent of the Southern, with headquarters at New York, has been promoted to district freight and passenger agent, with the same headquarters, succeeding **Roland A. Davis,** who succeeds **F. J. Muckenhaupt,** retired.

J. T. Little, assistant general freight agent of the New York, Ontario & Western at New York, has been promoted to general freight agent, with the same headquarters. Mr. Little was born at New York on July 3, 1896, and entered the service of the New York, Ontario & Western on October 15, 1913, in the traffic de-

J. T. Little

partment at New York, serving in both the passenger and freight departments until 1926. From 1926 to 1932 Mr. Little served as general agent at Cleveland, Ohio, returning to New York as assistant general freight agent in 1933. He was later transferred to Detroit, Mich., where he served for four years, returning to New York in 1938.

OBITUARY

Miss Avis Lobdell, special representative of the president, in charge of the women's travel department of the Union Pacific system, with headquarters at Los Angeles, Cal., died suddenly at her home in that city after a short illness on July 23.

Louis H. Windholz, chairman of the board of the Norfolk Southern, with headquarters at Norfolk, Va., died at his home in Virginia Beach, Va., on July 24, after a heart attack, at the age of 63. A photograph of Mr. Windholz and a biographical sketch of his railway career were published in the *Railway Age* of February 7 in connection with his election as chairman of the board.

John E. Fairhead, division superintendent of the Delaware & Hudson at Albany, N. Y., died on July 21 in his 63rd year. Mr. Fairhead was born at Urbana, Ill., on August 4, 1879, and entered railroad service in 1900 as clerk to trainmaster of the Chesapeake & Ohio at Huntington, W. Va. He subsequently served in clerical capacities with the Cleveland, Cincinnati, Chicago & St. Louis, the Wabash and the Cincinnati, Hamilton & Dayton. In 1905 he went with the Kansas City Southern, serving successively as secretary to president, chief clerk to general manager, chief clerk to vice-president and general manager, and superintendent of car service, all at Kansas City, Mo. In 1918 Mr. Fairhead became general superintendent of the Pittsburgh & West Virginia and on August 15, 1920, he went with the Delaware & Hudson as superintendent of the Pennsylvania division, being transferred to the Saratoga division on August 15, 1923. Mr. Fairhead became superintendent of the Saratoga-Champlain division at Albany on November 1, 1938, which position he held until his death.

William Albert Roderick, engineer maintenance of way and structures of the Wheeling & Lake Erie, with headquarters at Brewster, Ohio, whose death on July 17 was reported in the *Railway Age* of July 25, was born at Navarre, Ohio, on May 25, 1885, and studied several correspondence school courses. He entered railway service on September 1, 1905, as a timekeeper in the track department of the Wheeling & Lake Erie. In 1907 he was appointed construction foreman of the Sugar Creek & Northern (now part of the W. & L. E.) and from 1912 to 1921 he served as transitman, levelman and rail inspector in the engineering department of the W. & L. E. Mr. Roderick then served for a year as a transitman on construction work for the Ohio Power Company, returning to the W. & L. E. on March 15, 1922, as rail inspector. On October 16, 1922, he was promoted to assistant engineer and on April 1, 1924, he was appointed district roadmaster. He was promoted to engineer maintenance of way, with headquarters at Brewster, Ohio, in November, 1925, and a short time later was appointed engineer maintenance of way and structures, which position he held until his death.

Table of Operating Revenues appears on second left-hand page

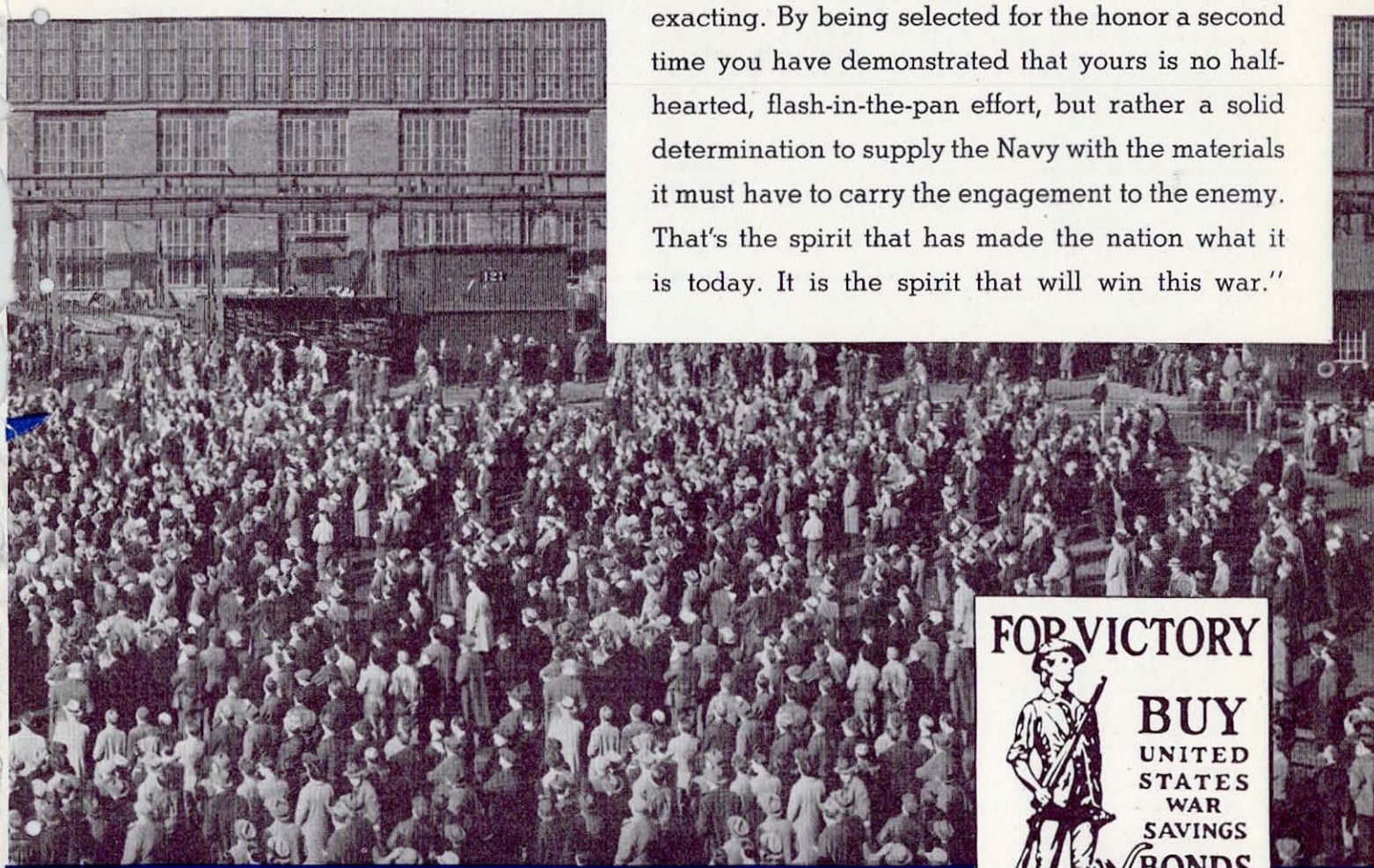
A Star

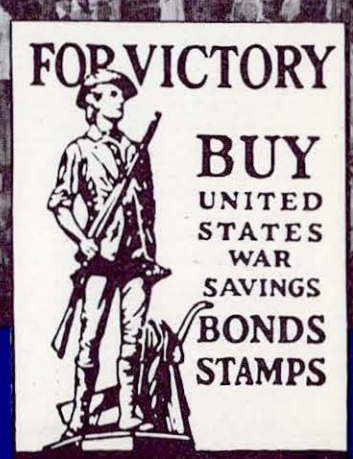
has been added!

First awarded the Navy "E" on October 24, 1941, the privilege to fly the pennant was extended to American Locomotive Company for a second six months' period on April 24, 1942 and a star was added to the burgee.

In his letter renewing the citation, Rear Admiral H. A. Wiley said,

"A Navy "E" is not lightly bestowed in the first instance; the requirements for renewal are equally exacting. By being selected for the honor a second time you have demonstrated that yours is no half-hearted, flash-in-the-pan effort, but rather a solid determination to supply the Navy with the materials it must have to carry the engagement to the enemy. That's the spirit that has made the nation what it is today. It is the spirit that will win this war."





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Operating Revenues and Operating Expenses of Class I Steam Railways

Compiled from 133 Monthly Reports of Revenues and Expenses Representing 136 Class I Steam Railways

(Switching and Terminal Companies Not Included)

FOR THE MONTH OF MAY, 1942 AND 1941

Item	United States		Eastern District		Southern District		Western District	
	1942	1941	1942	1941	1942	1941	1942	1941
Miles of road operated at close of month	231,368	232,218	56,891	57,233	43,820	44,190	130,657	130,795
Revenues:								
Freight	$487,981,753	$370,903,109	$203,105,194	$161,672,603	$100,570,936	$73,180,158	$184,305,623	$136,050,348
Passenger	74,344,666	37,492,809	35,410,653	19,989,561	14,312,095	5,881,069	24,621,918	11,622,179
Mail	8,928,984	9,085,878	3,229,527	3,362,862	1,628,779	1,543,407	4,070,678	4,179,609
Express	7,214,149	6,404,050	2,522,332	2,496,843	1,479,403	1,408,007	3,212,414	2,499,200
All other operating revenues	22,595,195	18,400,030	10,626,759	9,046,185	2,872,533	2,111,185	9,095,903	7,242,660
Railway operating revenues	601,064,747	442,285,876	254,894,465	196,568,054	120,863,746	84,123,826	225,306,536	161,593,996
Expenses:								
Maintenance of way and structures	66,162,657	51,640,349	26,822,160	20,105,055	10,690,985	8,598,073	28,649,512	22,937,221
Maintenance of equipment	99,752,859	80,997,206	44,546,350	38,160,402	19,347,200	14,756,515	35,859,309	28,080,289
Traffic	9,753,350	9,465,832	3,577,709	3,360,826	1,892,691	1,784,777	4,282,950	4,320,229
Transportation—Rail line	181,478,995	139,876,407	82,900,195	64,928,640	31,437,482	23,753,703	67,141,318	51,194,064
Transportation—Water line	‡40,154	420,762	.....	.....	.....	.....	‡40,154	420,762
Miscellaneous operations	5,529,539	3,497,636	2,275,089	1,559,381	877,634	478,024	2,376,816	1,460,231
General	12,812,528	11,052,925	5,134,707	4,340,267	2,464,864	2,142,546	5,212,957	4,570,112
Transportation for investment—Cr.†	.....	360,642	.....	69,615	.....	61,268	.....	229,759
Railway operating expenses	375,449,774	296,590,475	165,256,210	132,384,956	66,710,856	51,452,370	143,482,708	112,753,149
Net revenue from railway operations	225,614,973	145,695,401	89,638,255	64,183,098	54,152,890	32,671,456	81,823,828	48,840,847
Railway tax accruals	100,183,303	46,310,018	39,793,236	20,820,747	29,172,853	10,879,082	31,217,214	14,610,189
Railway operating income	125,431,670	99,385,383	49,845,019	43,362,351	24,980,037	21,792,374	50,606,614	34,230,658
Equipment rents—Dr. balance	12,448,374	8,420,985	6,137,661	3,966,953	1,150,618	680,748	5,160,095	3,773,284
Joint facility rent—Dr. balance	3,311,242	2,859,965	1,861,649	1,527,293	331,027	346,082	1,118,566	986,590
Net railway operating income	109,672,054	88,104,433	41,845,709	37,868,105	23,498,392	20,765,544	44,327,953	29,470,784
Ratio of expenses to revenues (per cent)	62.5	67.1	64.8	67.3	55.2	61.2	63.7	69.8
Depreciation included in operating expenses	20,213,610	18,073,533	9,218,933	7,959,472	3,902,534	3,624,580	7,092,143	6,489,481
Amortization of Defense Projects	6,754,323	.....	2,057,809	.....	1,886,130	.....	2,810,384	.....
Pay roll taxes	13,818,088	10,965,282	6,113,159	4,869,546	2,511,585	1,898,558	5,193,344	4,197,178
All other taxes	86,365,215	35,344,736	33,680,077	15,951,201	26,661,268	8,980,524	26,023,870	10,413,011

FOR FIVE MONTHS ENDED WITH MAY, 1942 AND 1941

Miles of road operated at close of month*	231,530	232,320	56,910	57,248	43,881	44,209	130,739	130,863
Revenues:								
Freight	$2,171,820,015	$1,628,492,386	$913,987,017	$713,118,714	$435,274,873	$324,604,737	$822,558,125	$590,768,935
Passenger	310,010,204	192,540,829	149,978,120	98,874,260	59,969,533	36,261,104	100,062,551	57,405,465
Mail	44,008,768	43,162,369	16,019,476	16,081,192	7,863,600	7,516,539	20,125,692	19,564,638
Express	33,027,151	24,547,788	11,386,446	9,494,332	6,183,695	5,621,151	15,457,010	9,432,305
All other operating revenues	98,206,422	80,657,724	47,214,998	40,133,642	13,053,838	10,522,546	37,937,586	30,001,536
Railway operating revenues	2,657,072,560	1,969,401,096	1,138,586,057	877,702,140	522,345,539	384,526,077	996,140,964	707,172,879
Expenses:								
Maintenance of way and structures	280,407,162	211,152,873	113,428,510	84,719,152	51,574,364	39,904,968	115,404,288	86,528,753
Maintenance of equipment	481,312,704	379,913,334	219,370,237	176,803,327	91,298,345	71,210,460	170,644,122	131,899,547
Traffic	48,395,805	45,348,944	17,511,234	16,010,807	9,684,640	8,996,397	21,199,931	20,341,740
Transportation—Rail line	878,858,663	669,195,249	405,176,283	310,919,081	150,039,338	115,065,000	323,643,042	243,211,168
Transportation—Water line	22,362	2,616,144	.....	.....	.....	.....	22,362	2,616,144
Miscellaneous operations	25,835,519	17,493,715	10,629,873	7,614,755	4,332,781	2,939,742	10,872,865	6,939,218
General	63,960,098	54,924,909	25,686,720	21,708,919	12,300,260	10,764,273	25,973,118	22,451,717
Transportation for investment—Cr.†	.....	1,228,704	.....	191,646	.....	291,538	.....	745,520
Railway operating expenses	1,778,792,313	1,379,416,464	791,802,857	617,584,395	319,229,728	248,589,302	667,759,728	513,242,767
Net revenue from railway operations	878,280,247	589,984,632	346,783,200	260,117,745	203,115,811	135,936,775	328,381,236	193,930,112
Railway tax accruals	377,768,297	195,806,000	155,914,175	86,452,678	98,862,084	46,428,789	122,992,038	62,924,533
Railway operating income	500,511,950	394,178,632	190,869,025	173,665,067	104,253,727	89,507,986	205,389,198	131,005,579
Equipment rents—Dr. balance	52,236,861	39,865,189	26,075,957	19,526,059	3,091,888	2,313,946	23,069,016	18,025,184
Joint facility rent—Dr. balance	15,306,956	13,807,560	8,264,807	7,531,794	1,630,604	1,498,123	5,411,545	4,777,643
Net railway operating income	432,968,133	340,505,883	156,528,261	146,607,214	99,531,235	85,695,917	176,908,637	108,202,752
Ratio of expenses to revenues (per cent)	66.9	70.0	69.5	70.4	61.1	64.6	67.0	72.6
Depreciation included in operating expenses	97,243,263	89,201,001	43,905,631	39,192,237	19,921,240	18,001,734	33,416,392	32,007,030
Amortization of Defense Projects	26,417,770	.....	8,832,453	.....	6,682,504	.....	10,902,813	.....
Pay roll taxes	66,841,984	51,317,630	29,589,372	22,848,202	11,908,914	9,086,760	25,343,698	19,382,668
All other taxes	310,926,313	144,488,370	126,324,803	63,604,476	86,953,170	37,342,029	97,648,340	43,541,865

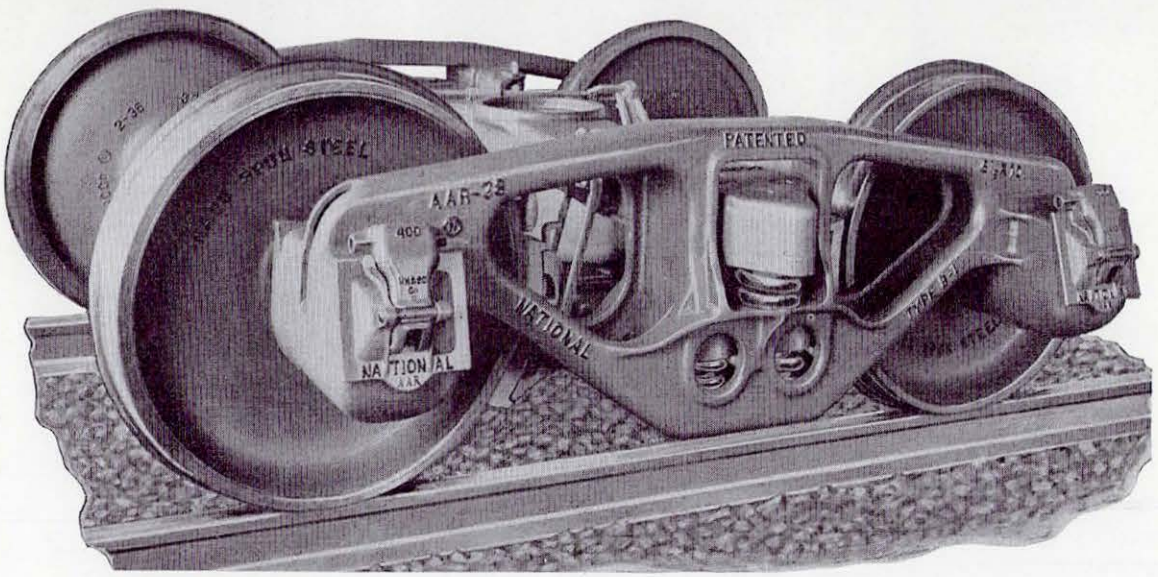
* Represents an average of the mileage reported at the close of each month within the period.

† General Account VIII. Transportation for Investment—Cr. canceled effective January 1, 1942.

‡ Decrease, deficit, or other reverse items.

Table of Operating Statistics Appears on Next Left-Hand Page

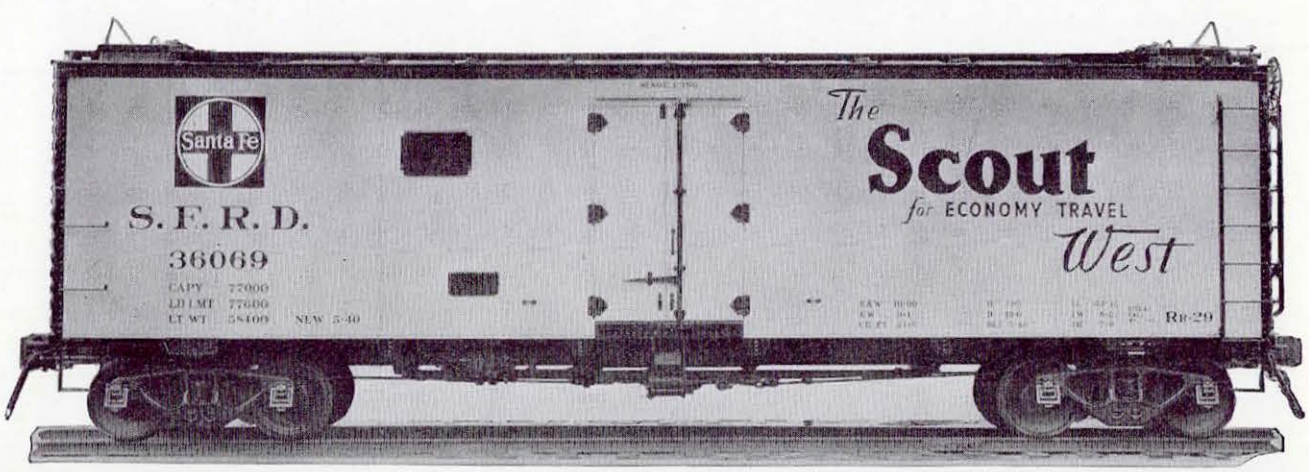
NATIONAL B-1 TRUCKS
with DUAL CONTROL



ON cars carrying perishable goods or freight requiring quick delivery, National B-1 Trucks with Dual Control are most desirable, as these trucks assure smooth riding at high speeds, and reduce delays.

Specify National B-1 Trucks with Dual Control to keep cars "on the go."

They meet all A. A. R. requirements



NATIONAL MALLEABLE AND STEEL CASTINGS CO.
General Offices: CLEVELAND, OHIO
Sales Offices: New York, Philadelphia, Chicago, St. Louis, San Francisco
Works: Cleveland, Chicago, Indianapolis, Sharon, Pa., Melrose Park, Ill.

Canadian Representatives: Railway and Power Engineering Corporation, Ltd., Toronto and Montreal

Freight Operating Statistics of Large Steam Railways — Selected Items

Region, road, and year	Miles of road operated	Train-miles	Locomotive-miles: Principal and helper	Locomotive-miles: Light	Car-miles: Loaded (thousands)	Car-miles: Per cent loaded	Ton-miles (thousands): Gross excluding locomotives and tenders	Ton-miles (thousands): Net revenue and non-revenue	Number of road locomotives on line: Serviceable: Not stored	Number of road locomotives on line: Serviceable: Stored	Number of road locomotives on line: Unserviceable	Number of road locomotives on line: Per cent unserviceable
New England Region:												
Boston & Albany 1942	362	218,184	263,547	50,298	5,815	56.8	411,785	166,646	67	..	19	22.1
1941	362	169,647	177,918	12,666	3,857	64.2	230,364	85,725	65	2	19	22.1
Boston & Maine 1942	1,853	414,792	485,415	52,054	14,289	62.8	963,422	419,134	150	5	25	13.9
1941	1,894	333,253	383,689	34,464	13,250	69.2	748,844	289,960	135	..	35	20.6
N. Y., New Hav. & Hartf.† 1942	1,821	538,019	698,821	59,199	19,450	63.5	1,240,090	521,862	227	..	33	15.2
1941	1,829	441,890	552,776	36,786	16,841	68.2	926,328	355,799	203	1	51	21.4
Great Lakes Region:												
Delaware & Hudson 1942	849	384,479	494,130	46,177	13,870	61.8	1,023,765	515,590	166	11	45	20.3
1941	849	280,982	327,098	38,436	10,838	65.4	699,026	324,354	125	47	72	29.5
Del., Lack. & Western 1942	982	375,889	437,749	67,044	15,671	65.2	1,059,112	490,197	149	19	31	15.6
1941	983	398,706	457,784	62,588	16,323	70.9	956,173	400,803	142	4	69	32.1
Erie 1942	2,251	931,220	997,059	75,993	42,825	65.3	2,795,348	1,198,116	296	11	99	24.4
1941	2,257	806,968	854,683	50,109	36,169	67.2	2,217,141	882,194	246	19	160	37.6
Grand Trunk Western 1942	1,026	226,917	243,230	1,748	7,513	61.4	498,956	196,933	63	4	15	18.3
1941	1,023	292,515	295,361	2,130	9,212	63.7	561,346	197,723	75	..	18	19.4
Lehigh Valley 1942	1,251	440,395	488,772	88,074	18,305	62.2	1,293,835	609,489	148	..	39	20.9
1941	1,252	381,101	418,456	65,879	16,396	68.8	1,017,478	448,221	126	7	50	27.3
New York Central 1942	10,494	3,714,842	4,056,700	269,508	137,049	57.9	10,037,071	4,472,813	1,139	3	272	19.2
1941	10,521	3,181,234	3,384,150	219,493	117,777	62.0	7,849,168	3,344,672	1,016	68	304	21.9
N. Y., Chicago & St. Louis 1942	1,657	866,860	878,806	10,890	31,198	61.7	2,122,557	904,001	162	..	13	7.4
1941	1,672	609,130	620,494	8,127	23,561	66.8	1,414,183	545,338	136	4	23	14.1
Pere Marquette 1942	2,021	399,672	406,381	6,465	11,575	62.0	801,160	354,953	144	..	21	12.7
1941	2,068	404,561	419,569	10,566	12,510	65.4	775,007	303,542	128	1	24	15.7
Pittsburgh & Lake Erie 1942	232	110,876	114,232	....	4,699	62.4	413,042	242,217	50	2	11	17.5
1941	233	100,826	104,702	79	4,378	65.1	370,458	217,968	42	..	17	28.8
Wabash 1942	2,381	789,932	810,577	17,118	27,703	63.5	1,834,499	774,347	169	20	50	20.9
1941	2,397	647,896	660,295	13,055	22,589	68.2	1,322,232	491,188	144	8	110	42.0
Central Eastern Region:												
Baltimore & Ohio 1942	6,215	2,464,309	3,108,047	335,075	80,755	60.1	5,956,775	2,823,086	942	12	205	17.7
1941	6,245	1,919,158	2,399,094	251,585	65,088	64.8	4,452,916	2,085,207	788	103	253	22.1
Central of New Jersey† 1942	661	256,051	291,814	59,169	8,471	59.3	644,649	327,876	117	9	19	13.1
1941	680	198,185	226,053	45,540	7,085	70.4	437,533	214,314	87	8	51	34.9
Chicago & Eastern Illinois 1942	925	187,910	188,295	3,439	4,852	63.7	329,205	148,976	51	4	13	19.1
1941	925	187,341	188,462	3,162	5,294	69.3	319,513	134,110	58	3	30	33.0
Elgin, Joliet & Eastern‡ 1942	392	149,153	150,761	986	4,053	62.0	319,358	165,353	68	..	11	13.9
1941	390	127,868	129,412	1,239	3,573	61.4	273,846	138,063	65	..	11	14.5
Long Island 1942	374	31,055	32,734	20,059	312	52.1	24,943	10,669	40	1	6	12.8
1941	375	28,903	30,264	18,840	314	53.0	23,603	9,330	34	8	6	12.5
Pennsylvania System 1942	9,952	5,025,645	5,926,729	729,769	185,970	59.6	13,735,226	6,442,063	2,011	9	143	6.6
1941	9,960	3,908,649	4,668,928	567,569	155,192	64.2	10,630,872	4,928,198	1,619	22	500	23.4
Reading 1942	1,423	631,378	706,259	95,458	19,722	59.8	1,548,210	801,004	285	12	32	9.8
1941	1,430	491,096	548,194	69,978	15,906	67.9	1,069,300	541,436	260	11	79	22.6
Pocahontas Region:												
Chesapeake & Ohio 1942	3,050	1,162,016	1,242,139	61,235	53,723	55.8	4,671,767	2,593,329	402	9	76	15.6
1941	3,053	969,357	1,025,189	48,569	48,481	60.9	3,957,333	2,216,122	391	42	67	13.4
Norfolk & Western 1942	2,142	820,939	873,261	57,869	36,748	56.8	3,257,679	1,778,992	305	10	28	8.2
1941	2,169	774,074	814,469	47,681	36,503	59.4	3,015,980	1,613,770	310	20	20	5.7
Southern Region:												
Atlantic Coast Line 1942	4,984	1,082,831	1,106,231	15,208	28,021	60.6	1,843,172	743,849	341	..	29	7.8
1941	5,071	828,072	850,824	12,135	19,496	60.4	1,222,050	449,823	312	6	39	10.9
Central of Georgia† 1942	1,783	301,134	304,659	4,950	6,834	68.3	436,735	190,903	109	..	12	9.9
1941	1,831	310,932	313,953	4,873	7,258	73.4	410,900	170,601	94	..	23	19.7
Gulf, Mobile & Ohio 1942	1,959	336,439	418,745	6,859	11,824	70.2	743,213	345,018	110	..	8	6.8
1941	1,962	261,775	309,488	3,699	8,738	70.5	508,259	212,134	92	7	11	10.0
Illinois Central (incl. Y. & M. V.) 1942	6,500	1,941,932	1,953,715	34,511	66,121	59.4	4,708,306	2,090,368	634	10	71	9.9
1941	6,521	1,451,115	1,456,019	26,313	45,288	64.5	2,877,334	1,214,504	525	14	175	24.5
Louisville & Nashville 1942	4,789	1,696,553	1,850,916	49,992	42,722	60.2	3,165,235	1,526,364	416	5	56	11.7
1941	4,856	1,447,203	1,565,247	36,900	36,728	61.9	2,548,863	1,172,883	390	14	57	12.4
Seaboard Air Line* 1942	4,232	997,491	1,082,620	11,678	26,866	64.2	1,813,208	780,743	277	1	29	9.4
1941	4,298	775,317	816,220	6,104	19,641	62.2	1,222,722	456,007	260	..	42	13.9
Southern 1942	6,469	2,158,685	2,199,589	32,390	47,053	63.6	3,056,348	1,334,770	584	..	91	13.5
1941	6,521	1,751,480	1,784,283	26,698	41,672	67.7	2,461,924	1,029,197	534	2	113	17.4
Northwestern Region:												
Chicago & North Western† 1942	8,262	987,803	1,019,622	19,298	31,509	64.6	2,129,249	898,006	346	43	142	26.7
1941	8,316	932,297	962,146	18,885	31,010	65.6	1,935,867	821,765	303	31	232	41.0
Chicago Great Western 1942	1,447	278,427	283,033	4,999	8,228	64.5	541,371	217,940	76	2	10	11.4
1941	1,447	273,351	276,904	5,632	8,712	64.3	535,749	196,358	71	4	10	11.8
Chi., Milw., St. P. & Pac.† 1942	10,813	1,438,141	1,501,635	60,519	45,720	64.8	3,119,763	1,429,038	459	77	84	13.5
1941	10,847	1,392,747	1,457,359	58,050	44,105	61.9	2,874,923	1,174,362	438	44	125	20.6
Chi., St. P., Minn. & Omaha 1942	1,618	226,965	242,015	11,254	5,582	64.1	376,993	164,716	109	14	6	4.7
1941	1,618	217,011	225,925	10,419	5,570	68.3	339,030	135,435	101	17	17	12.6
Duluth, Missabe & I. R. 1942	543	173,213	174,428	1,696	9,464	51.0	833,607	503,510	55	2	3	5.0
1941	541	160,441	161,463	1,864	7,701	51.3	685,046	418,050	48	..	3	5.9
Great Northern 1942	7,982	1,090,312	1,087,114	34,285	41,341	62.6	3,127,142	1,549,103	382	36	71	14.5
1941	7,978	987,852	980,134	29,805	37,941	62.9	2,728,708	1,290,158	350	45	111	21.9
Minneap., St. P. & S. St. M.† 1942	4,258	444,448	451,755	7,171	11,456	63.3	788,288	361,424	129	1	9	6.5
1941	4,251	407,897	414,606	5,295	11,177	67.5	677,833	299,445	118	..	11	8.5
Northern Pacific 1942	6,593	842,233	900,462	63,298	32,081	72.1	2,085,440	1,016,310	327	39	73	16.6
1941	6,422	743,057	788,550	48,809	28,112	70.7	1,683,819	740,904	327	46	67	15.2
Central Western Region:												
Alton 1942	915	274,371	299,708	1,378	7,077	61.4	489,648	187,181	70	1	2	2.7
1941	915	221,980	241,467	1,090	5,250	64.7	333,482	130,173	61	5	11	14.3
Atch., Top. & S. Fe (incl. G. C. & S. F. & P. & S. F. 1942	13,362	3,185,785	3,514,369	204,253	96,543	57.5	6,954,957	2,465,859	798	24	98	10.7
1941	13,431	2,483,215	2,743,979	154,722	74,660	61.5	4,897,152	1,694,444	706	44	127	14.5
Chicago, Burl. & Quincy 1942	8,888	1,307,229	1,370,283	54,871	42,386	63.4	2,904,069	1,315,306	418	20	89	16.9
1941	8,924	1,205,093	1,238,966	46,894	39,669	68.1	2,405,964	1,020,818	405	35	102	18.8
Chi., Rock I. & Pac.† 1942	7,892	1,322,174	1,376,472	9,329	32,986	57.8	2,332,947	915,988	349	21	107	22.4
1941	7,911	1,201,128	1,226,473	10,259	32,902	62.5	2,077,684	814,009	353	24	113	23.1
Denver & Rio Gr. Western† 1942	2,422	423,289	479,805	60,328	11,726	64.9	850,378	382,032	153	13	23	12.2
1941	2,547	313,568	348,976	39,725	9,362	70.6	572,064	249,879	128	23	32	17.5
Southern Pac.—Pac. Lines 1942	8,485	2,324,543	2,602,678	373,082	84,179	62.1	5,794,382	2,285,357	768	10	112	12.6
1941	8,490	1,908,107	2,089,247	266,063	71,180	63.9	4,525,347	1,624,811	651	13	107	13.9
Union Pacific 1942	9,852	2,453,550	2,572,729	180,103	86,857	68.3	5,522,229	2,384,275	741	24	94	10.9
1941	9,877	2,271,172	2,364,292	136,469	73,719	68.6	4,341,813	1,654,221	624	28	193	22.8
Southwestern Region:												
Mo.-Kansas-Texas Lines 1942	3,281	584,688	593,555	8,709	14,542	56.0	1,004,670	387,154	111	..	65	36.9
1941	3,281	424,095	427,908	7,333	11,079	64.1	664,010	244,527	77	..	99	56.3
Missouri Pacific† 1942	7,104	1,734,570	1,786,251	36,908	56,043	61.5	3,860,158	1,660,449	478	6	45	8.5
1941	7,109	1,217,513	1,239,876	24,709	38,222	66.5	2,360,215	935,233	393	32	76	15.2
Texas & Pacific 1942	1,887	363,641	363,641	3,389	10,521	57.7	771,319	285,353	98	25	42	25.5
1941	1,882	280,667	280,667	1,957	9,590	62.5	594,374	207,769	68	33	86	46.0
St. Louis-San Francisco† 1942	4,731	970,505	1,017,855	20,858	22,097	58.6	1,549,716	629,513	316	..	25	7.3
1941	4,735	807,316	821,577	13,714	18,528	61.9	1,202,231	474,261	280	14	29	9.0
St. Louis-San Fran. & Texas 1942	159	34,554	35,457	30	489	53.7	35,648	12,991	12	..	1	7.7
1941	159	28,650	28,664	26	467	62.4	30,612	10,712	9	4	1	7.1
St. Louis Southw. Lines† 1942	1,600	530,280	536,606	6,692	17,146	60.5	1,138,168	451,462	109	3	17	13.2
1941	1,600	316,782	323,440	4,239	9,934	64.2	596,384	220,251	85	11	21	17.9
Texas & New Orleans 1942	4,400	945,187	945,354	15,732	25,794	63.7	1,731,742	718,943	224	9	22	8.6
1941	4,415	699,572	699,779	6,708	18,094	66.1	1,136,200	446,583	214	4	44	16.8

* Report of receivers.
† Report of trustee or trustees.
‡ No passenger-train service.

for the Month of May 1942, Compared with May 1941, —Continued

Region, road, and year		Number of freight cars on line: Home	Foreign	Total	Per cent unserviceable	Gross ton-miles per train-hour, excluding locomotives and tenders	Gross ton-miles per train-mile, excluding locomotives and tenders	Net ton-miles per train-mile	Net ton-miles per loaded car-mile	Net ton-miles per car-day	Car-miles per car-day	Net ton-miles per mile of road per day	Pounds of coal per 1,000 gross ton-miles, including locomotives and tenders	Locomotive miles per locomotive-day
New England Region:														
Boston & Albany	1942	453	6,388	6,841	0.2	30,478	1,903	770	28.7	800	49.2	14,850	138	128.1
	1941	757	5,646	6,403	1.0	23,487	1,375	512	22.2	435	30.5	7,639	146	76.9
Boston & Maine	1942	3,401	8,621	12,022	3.0	36,074	2,333	1,015	29.3	1,068	58.0	7,297	87	99.5
	1941	3,814	9,695	13,509	2.7	31,249	2,253	872	21.9	694	45.8	4,939	88	85.4
N. Y., New Hav. & Hartf.†	1942	4,925	18,178	23,103	3.4	34,416	2,338	984	26.8	702	41.1	9,245	92	99.4
	1941	5,038	17,114	22,152	2.8	30,633	2,128	817	21.1	535	37.2	6,275	97	80.9
Great Lakes Region:														
Delaware & Hudson	1942	6,845	6,814	13,659	4.3	41,426	2,698	1,359	37.2	1,289	56.1	19,590	96	82.8
	1941	6,332	5,129	11,461	4.6	39,760	2,511	1,165	29.9	890	45.5	12,324	102	51.0
Del., Lack. & Western	1942	8,176	9,542	17,718	2.6	45,724	2,855	1,322	31.3	880	43.1	16,103	111	86.6
	1941	8,059	9,665	17,724	3.3	41,339	2,422	1,015	24.6	757	43.5	13,153	120	82.5
Erie	1942	13,224	23,674	36,898	2.6	51,449	3,023	1,296	28.0	1,047	57.3	17,170	87	92.8
	1941	11,921	19,919	31,840	2.2	47,394	2,773	1,103	24.4	886	54.1	12,609	93	75.8
Grand Trunk Western	1942	4,154	5,808	9,962	3.8	41,260	2,210	872	26.2	616	38.3	6,192	82	103.8
	1941	3,075	8,315	11,390	7.1	37,855	1,931	680	21.5	586	42.9	6,235	81	111.3
Lehigh Valley	1942	8,500	17,492	25,992	1.4	50,040	3,012	1,419	33.3	800	38.6	15,716	100	106.1
	1941	7,797	12,386	20,183	1.2	50,704	2,716	1,196	27.3	725	38.6	11,549	98	91.3
New York Central	1942	67,128	75,333	142,461	4.8	44,766	2,728	1,216	32.6	982	52.0	13,749	89	108.8
	1941	69,817	72,454	142,271	8.2	42,462	2,486	1,059	28.4	793	45.1	10,255	92	93.4
N. Y., Chicago & St. Louis	1942	5,702	13,262	18,964	2.0	44,807	2,453	1,045	29.0	1,568	87.7	17,599	82	173.4
	1941	4,618	9,582	14,200	2.5	44,603	2,326	897	23.1	1,251	80.9	10,521	83	132.9
Pere Marquette	1942	6,993	6,309	13,302	3.3	35,846	2,017	894	30.7	850	44.7	5,666	84	88.5
	1941	5,784	9,198	14,982	2.8	33,873	1,926	754	24.3	687	43.2	4,735	85	98.1
Pittsburgh & Lake Erie	1942	5,345	7,751	13,096	8.8	51,068	3,742	2,194	51.5	589	18.3	33,679	72	66.3
	1941	8,003	6,604	14,607	11.6	47,507	3,690	2,171	49.8	410	12.7	30,177	85	61.1
Wabash	1942	10,114	12,714	22,828	0.8	46,157	2,349	992	28.0	1,116	62.9	10,491	99	115.6
	1941	8,979	12,202	21,181	1.6	42,473	2,065	767	21.7	766	51.6	6,610	99	86.7
Central Eastern Region:														
Baltimore & Ohio	1942	48,487	46,058	94,545	3.2	32,766	2,465	1,168	35.0	949	45.2	14,653	131	101.5
	1941	45,103	36,453	81,556	3.3	31,646	2,364	1,107	32.0	818	39.4	10,771	137	79.2
Central of New Jersey†	1942	7,760	19,095	26,855	2.0	31,734	2,584	1,314	38.7	404	17.6	16,001	119	101.4
	1941	5,528	13,659	19,187	3.9	28,441	2,315	1,134	30.2	373	17.5	10,167	130	76.2
Chicago & Eastern Illinois	1942	2,769	2,938	5,707	4.2	31,977	1,761	797	30.7	854	43.7	5,195	121	95.8
	1941	2,905	3,511	6,416	5.9	32,105	1,726	724	25.3	677	38.6	4,677	113	71.0
Elgin, Joliet & Eastern‡	1942	8,497	6,777	15,274	4.3	18,705	2,190	1,134	40.8	338	13.4	13,607	120	88.9
	1941	8,835	8,851	17,686	3.0	18,311	2,198	1,108	38.6	285	12.0	11,420	109	81.4
Long Island	1942	67	3,616	3,683	0.7	6,307	816	349	34.2	87	4.9	920	284	48.8
	1941	78	3,739	3,817	0.4	5,895	833	329	29.7	81	5.1	803	240	45.9
Pennsylvania System	1942	153,913	96,966	250,879	3.7	39,471	2,800	1,313	34.6	822	39.8	20,881	106	107.4
	1941	163,904	76,177	240,081	10.8	39,512	2,788	1,292	31.8	663	32.5	15,961	110	86.2
Reading	1942	18,471	21,102	39,573	5.0	31,278	2,460	1,273	40.6	635	26.1	18,158	114	88.8
	1941	19,239	16,732	35,971	9.2	28,397	2,183	1,105	34.0	477	20.7	12,214	125	66.0
Pocahontas Region:														
Chesapeake & Ohio	1942	42,917	15,548	58,465	1.1	60,219	4,069	2,259	48.3	1,456	54.0	27,428	66	94.3
	1941	41,080	14,878	55,958	2.0	59,361	4,121	2,308	45.7	1,218	43.8	23,416	64	75.8
Norfolk & Western	1942	33,665	6,188	39,853	2.7	63,675	4,049	2,211	48.4	1,432	52.0	26,791	81	96.1
	1941	33,133	6,646	39,779	1.6	60,777	3,951	2,114	44.2	1,104	42.0	24,000	81	86.8
Southern Region:														
Atlantic Coast Line	1942	11,486	15,908	27,394	4.6	29,553	1,709	690	26.5	913	56.8	4,814	101	105.3
	1941	12,034	10,783	22,817	10.7	26,008	1,482	546	23.1	639	45.8	2,861	106	85.9
Central of Georgia†	1942	3,528	5,276	8,804	0.9	26,874	1,464	640	27.9	729	38.3	3,454	112	90.3
	1941	3,329	4,482	7,811	1.3	26,225	1,328	551	23.5	689	39.9	3,006	116	93.9
Gulf, Mobile & Ohio	1942	3,094	6,602	9,696	1.4	40,847	2,223	1,032	29.2	1,138	55.5	5,681	105	123.0
	1941	2,918	4,446	7,364	3.0	36,801	1,947	813	24.3	887	51.9	3,488	105	96.2
Illinois Central (incl. Y. & M. V.)	1942	26,183	25,854	52,037	1.2	39,449	2,460	1,092	31.6	1,252	66.7	10,374	107	95.5
	1941	25,683	19,576	45,259	3.5	33,499	2,002	845	26.8	853	49.4	6,008	120	71.8
Louisville & Nashville	1942	35,826	19,039	54,865	2.2	27,779	1,872	903	35.7	937	43.6	10,281	117	135.3
	1941	28,284	12,549	40,833	4.3	28,778	1,763	811	31.9	813	41.1	7,791	114	119.4
Seaboard Air Line*	1942	10,303	16,310	26,613	1.9	30,421	1,860	801	29.1	1,006	54.0	5,951	112	128.8
	1941	10,298	10,350	20,648	2.2	28,429	1,608	600	23.2	734	50.8	3,422	117	96.9
Southern	1942	19,236	30,641	49,877	2.3	24,471	1,434	626	28.4	909	50.4	6,656	136	111.7
	1941	21,900	23,926	45,826	6.9	24,149	1,417	593	24.7	720	43.1	5,091	135	94.8
Northwestern Region:														
Chicago & North Western†	1942	30,296	18,796	49,092	4.2	33,741	2,220	936	28.5	570	31.0	3,506	111	67.3
	1941	30,938	27,544	58,482	6.1	31,887	2,131	905	26.5	495	28.5	3,188	110	60.0
Chicago Great Western	1942	2,145	3,320	5,465	1.7	35,725	1,949	784	26.5	1,269	74.3	4,859	114	114.9
	1941	1,773	3,931	5,704	2.5	35,990	1,965	720	22.5	1,118	77.0	4,377	108	112.9
Chi., Milw., St. P. & Pac.†	1942	38,101	19,857	57,958	1.1	35,447	2,183	1,000	31.3	797	39.4	4,263	110	87.5
	1941	37,156	26,050	63,206	1.1	34,436	2,074	847	26.6	635	38.5	3,492	109	86.7
Chi., St. P., Minn. & Omaha	1942	1,953	6,295	8,248	5.2	22,554	1,676	732	29.5	655	34.6	3,284	106	65.5
	1941	2,009	5,948	7,957	7.5	21,340	1,583	632	24.3	589	35.5	2,700	99	61.4
Duluth, Missabe & I. R.	1942	12,889	458	13,347	2.6	81,662	4,958	2,995	53.2	1,208	44.5	29,912	58	115.0
	1941	13,099	241	13,340	0.9	74,179	4,361	2,661	54.3	999	35.9	24,927	63	122.5
Great Northern	1942	32,239	11,844	44,083	2.6	45,825	2,882	1,428	37.5	1,117	47.6	6,260	84	78.9
	1941	28,469	10,015	38,484	4.4	44,431	2,771	1,310	34.0	1,061	49.6	5,217	86	69.6
Minneap., St. P. & S. St. M.†	1942	10,790	4,867	15,657	3.2	30,644	1,783	817	31.5	767	38.4	2,738	90	107.6
	1941	10,717	5,229	15,946	3.5	27,936	1,666	736	26.8	620	34.3	2,272	90	108.4
Northern Pacific	1942	26,914	8,228	35,142	4.5	40,319	2,488	1,212	31.7	924	40.4	4,973	121	76.6
	1941	25,699	6,868	32,567	6.4	38,725	2,278	1,002	26.4	741	39.8	3,722	122	66.0
Central Western Region:														
Alton	1942	1,178	6,165	7,343	4.6	42,828	1,793	685	26.4	820	50.5	6,599	132	142.0
	1941	1,082	5,792	6,874	5.0	39,686	1,511	590	24.8	641	40.0	4,589	133	107.8
Atch., Top. & S. Fe (incl. G. C. & S. F. & P. & S. F.)	1942	62,593	28,059	90,652	3.9	42,079	2,191	777	25.5	908	61.8	5,953	112	136.4
	1941	60,337	19,860	80,197	6.1	39,152	1,979	685	22.7	708	50.7	4,070	111	113.6
Chicago, Burl. & Quincy	1942	24,019	15,773	39,792	3.1	38,696	2,232	1,011	31.0	1,070	54.4	4,774	103	90.8
	1941	23,546	18,887	42,433	3.1	35,016	2,005	851	25.7	790	45.1	3,690	101	80.8
Chi., Rock I. & Pac.†	1942	17,228	15,151	32,379	4.1	33,597	1,771	695	27.8	928	57.8	3,714	110	99.1
	1941	17,441	15,364	32,805	3.2	32,592	1,732	679	24.7	818	52.9	3,319	100	85.9
Denver & Rio Gr. Western†	1942	9,603	4,323	13,926	3.3	32,812	2,019	907	32.6	862	40.8	5,088	163	97.0
	1941	10,428	3,155	13,583	3.3	31,349	1,831	800	26.7	589	31.3	3,165	151	73.6
Southern Pac.—Pac. Lines	1942	28,027	41,994	70,021	2.5	36,279	2,514	992	27.1	1,028	61.0	8,688	102	111.3
	1941	27,472	32,305	59,777	3.1	38,092	2,388	857	22.8	906	62.1	6,174	96	102.1
Union Pacific	1942	38,269	27,789	66,058	6.5	45,844	2,268	979	27.5	1,176	62.8	7,807	120	106.6
	1941	34,429	22,311	56,740	5.8	42,962	1,933	736	22.4	936	60.8	5,403	120	98.8
Southwestern Region:														
Mo.-Kansas-Texas Lines	1942	4,315	8,185	12,500	3.0	32,766	1,724	664	26.6	964	64.6	3,806	85	119.7
	1941	5,169	4,685	9,854	11.6	31,624	1,568	578	22.1	855	60.4	2,404	82	84.9
Missouri Pacific†	1942	16,586	26,882	43,468	1.1	38,269	2,233	961	29.6	1,265	69.4	7,540	103	120.4
	1941	16,182	20,600	36,782	2.1	35,976	1,949	772	24.5	819	50.4	4,244	107	87.1
Texas & Pacific	1942	3,003	5,887	8,890	1.8	40,447	2,131	788	27.1	1,092	69.7	4,878	88	75.3
	1941	2,628	5,045	7,673	1.1	42,495	2,120	741	21.7	911	67.2	3,561	82	52.0
St. Louis-San Francisco†	1942	12,554	9,077	21,631	3.0	32,242	1,606	652	28.5	980	58.7	4,292	117	102.5
	1941	16,851	9,030	25,881	2.4	30,874	1,497	590	25.6	626	39.5	3,231	112	88.5
St. Louis-San Fran. & Texas	1942	..	400	400	7.0	18,822	1,034	377	26.6	930	65.2	2,636	130	98.0
	1941	..	473	473	3.6	23,878	1,069	374	22.9	778	54.4	2,173	124	66.6
St. Louis Southw. Lines†	1942	2,241	7,167	9,408	1.3	36,137	2,160	857	26.3	1,737	109.0	9,102	76	144.2
	1941	1,891	5,305	7,196	1.8	38,289	1,889	697	22.2	1,134	79.7	4,441	78	94.5
Texas & New Orleans	1942	4,581	19,006	23,587	1.8	34,526	1,848	767	27.9	1,078	60.7	5,271	80	126.6
	1941	4,879	13,198	18,077	3.3	31,743	1,637	643	24.7	826	50.7	3,263	84	92.3

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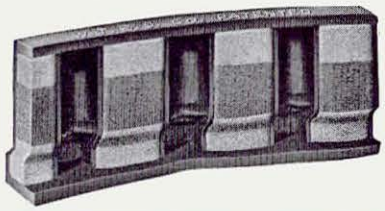

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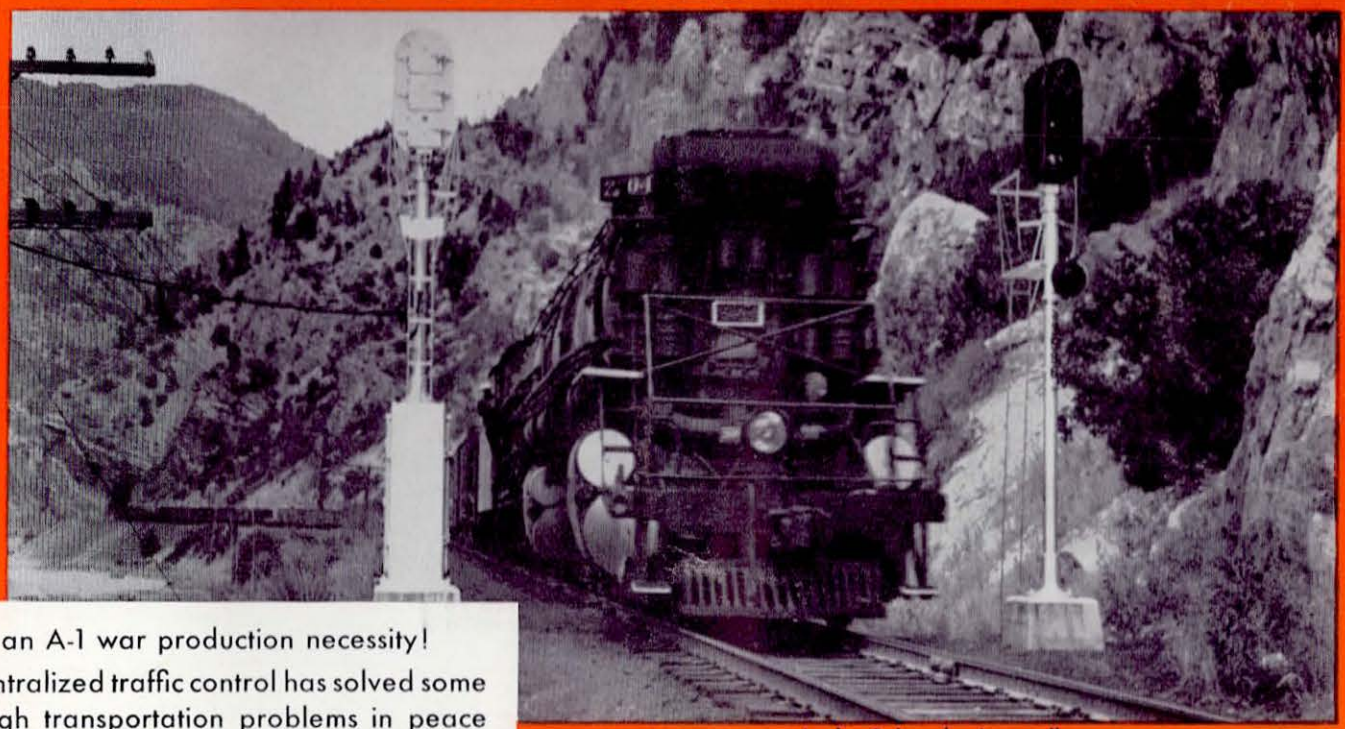
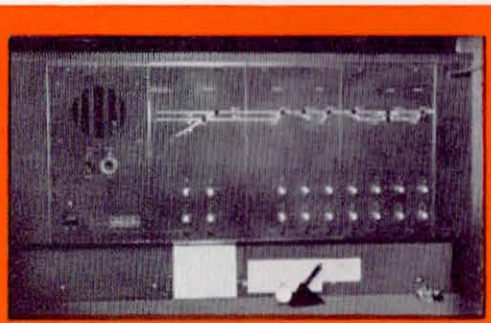


In the Colorado river valley

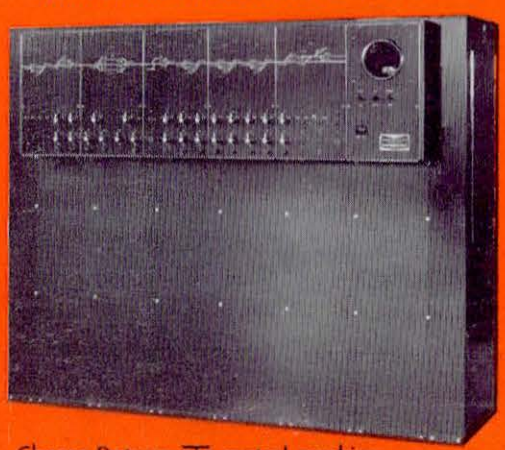
It's an A-1 war production necessity!

Centralized traffic control has solved some tough transportation problems in peace time. **It can lessen war-time difficulties.** Below is one example of how CTC helped the Rio Grande in peace time.

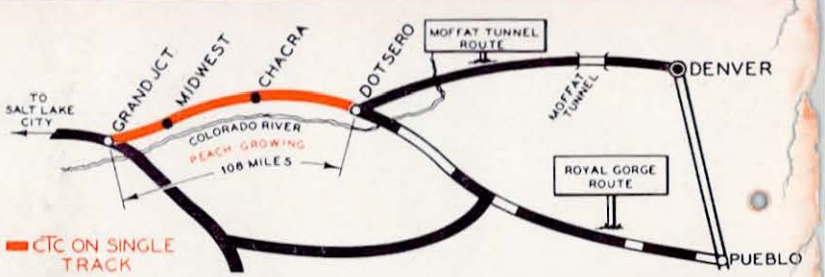
For further data, estimates, and studies call New York (Murray Hill 9-7533); Chicago (Harrison 2361 and 2362); St. Louis (Main 4696); San Francisco (Exbrook 1538).



Grand Junction-Midwest CTC control machine



Chacra-Dotsero CTC control machine



The Rio Grande transports about 2000 carloads of peaches yearly out of the Colorado river valley. This seasonal movement along with passenger travel and California fruits and vegetables jumps train movements from 14 to 40 daily along in August and September.

This used to cause congestion and serious delays on the 108-mile single track between Grand Junction and Dotsero.

In 1937 the CTC remedy was applied between Grand Junction and Midwest. Westbound freights were immediately saved 16 minutes per trip; eastbound 4 minutes. In 1941 the 26 miles between Chacra and Dotsero was placed under CTC, thus postponing double tracking indefinitely.

The results have been so gratifying, Midwest to Chacra is now being converted to CTC operation.

GENERAL RAILWAY SIGNAL COMPANY

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